

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("5907658").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/21 12:54
S4	3	("2007005795").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/19 09:56
S5	2	("20070005795").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/24 15:18
S6	2	("6701064").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/24 15:18
S8	1	("20060236218").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/24 16:43
S9	1225	(715/500.1).CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/24 17:46
S10	12	S9 and BD	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/24 18:02
S11	819	715/731,37,716.CCLS.	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/24 18:02
S12	5	S11 AND BD	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/24 18:04

## EAST Search History

S13	40	S11 AND (BD or high near3 capacity)	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/24 18:05
S14	1	("20050198560").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/30 14:57
S15	1	("20050193425").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/30 15:02
S16	1	("6580756").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/30 15:03
S17	1	("6166735").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/30 15:04
S18	1	("20020002513").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/07/30 15:05
S20	15	user same interactive same bd same video same stream	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/01 09:23
S21	1639	graphic\$2 near4 stream same video	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/31 14:57
S22	2832	graphic\$4 near button\$2	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/31 14:57
S23	119	S21 and S22	US-PGPUB; USPAT; EPO	ADJ	ON	2007/07/31 14:58
S24	1	"6701064"	US-PGPUB; USPAT; EPO	ADJ	ON	2007/08/01 10:44
S25	1	("6701064").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:45
S26	1	("20060064716").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:45
S27	1	("6580756").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:46
S28	1	("6166735").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:46

## EAST Search History

S29	1	("20070005795").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:47
S30	1	("20060188223").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/08/01 10:47
S31	2	("2001332006").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/08/01 10:48
S32	1	(JP-2001332006-\$.did.	JPO	ADJ	ON	2007/08/01 10:49
S33	1	("5,929857").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/01 08:36
S34	1	("5907658").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/01 08:37
S35	1	("6381398").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/01 08:38
S36	4	US-3281997-\$.DID. OR US-4540592-\$.DID.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2007/10/01 09:00
S37	8	US-5854873-\$.DID. OR US-5421911-\$.DID. OR US-5429112-\$.DID. OR US-5421511-\$.DID.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2007/10/01 09:00
S38	18	user same interactive same bd same video same stream	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/01 09:36
S39	1	("5907658").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/01 09:36
S40	8	animation with interaction near4 (button or icon)	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:18

## EAST Search History

S41	2	"20060188223"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/02 11:19
S42	2	EP "1608165" A1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/02 11:23
S43	20	"443876"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/02 11:32
S44	2804	386/95	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/02 11:33
S45	231	715/721	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/02 11:33
S46	10	S44 and S45	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:37
S47	616	animation near4 button	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:38
S48	2	S47 and (S45 or S44)	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:39
S49	852	715/731,37,716.CCLS.	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:45
S50	362	recording same graphic same data same stream	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 11:47



## EAST Search History

S51	27	recording near5 (graphic same data same stream)	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 13:22
S52	1	("20070057969").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 12:07
S53	1	("6433801").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 12:07
S54	1	("5835627").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 13:12
S55	47	"5835627"	US-PGPUB; USPAT; EPO	ADJ	ON	2007/10/02 13:33
S56	1	("20020095531").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 14:14
S57	1	("7187852").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 14:31
S58	1	("20020095531").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/02 14:31
S59	2	wo-2004025651-\$.did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/04 17:04
S60	1	wo-2005006747-\$.did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2007/10/04 17:12
S61	1	("20060245723").PN.	US-PGPUB; USPAT; EPO	OR	OFF	2007/10/04 17:28
S62	2	("20070160344").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/04 17:55

## EAST Search History

S63	2	("20060050088").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/11/19 16:57
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alternative value is stored, when number of button to be selected is invalid

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I); OKADA T (OKAD-I); UESAKA Y (UESA-I)

Inventor: **IKEDA W**; **OKADA T**; UESAKA Y

Patent Family (5 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005011272	A1	20050203	WO 2004JP8851	A	20040617	200517 B
EP 1638328	A1	20060322	EP 2004746320	A	20040617	200621 E
			WO 2004JP8851	A	20040617	
JP 2005511981	X	20060914	WO 2004JP8851	A	20040617	200661 E
			JP 2005511981	A	20040617	
KR 2006027333	A	20060327	WO 2004JP8851	A	20040617	200662 E
			KR 2005723866	A	20051212	
US 20070036517	A1	20070215	WO 2004JP8851	A	20040617	200715 E
			US 2006558949	A	20060906	

Priority Applications (no., kind, date): JP 2003173208 A 20030618

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005011272 A1 JA 137 59

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1638328 A1 EN PCT Application WO 2004JP8851  
Based on OPI patent WO 2005011272

Regional Designated States,Original: DE FR GB  
JP 2005511981 X JA 115 PCT Application WO 2004JP8851

Based on OPI patent WO 2005011272  
KR 2006027333 A KO PCT Application WO 2004JP8851

Based on OPI patent WO 2005011272  
US 20070036517 A1 EN PCT Application WO 2004JP8851



**Blu ray** disk-ROM player has status register in which alternative value is stored, when number of button to be selected is invalid

Inventor: **IKEDA W...**

...**OKADA T**

Alerting Abstract ...USE - **Blu ray** disk-ROM (BD...

Original Publication Data by Authority

Inventor name & address:

**IKEDA, Wataru...**

...**OKADA, Tomoyuki...**

...**IKEDA W...**

...**OKADA T...**

...Ikeda, Wataru......Okada, Tomoyuki......IKEDA, Wataru......OKADA, Tomoyuki

16/3,K/45 (Item 45 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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0014794515 - Drawing available  
 WPI ACC NO: 2005-142201/200515  
 Related WPI Acc No: 2005-142200  
 XRPX Acc No: N2005-120975  
 Recording medium e.g. blu ray disk, includes time stamp which  
 designates active period to start at or after specific time, when active  
 periods of two consecutive display sets overlap  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MCCROSSAN J  
 (MCCR-I); OKADA T (OKAD-I)  
 Inventor: MCCROSSAN J; OKADA T  
 Patent Family (4 patents, 106 countries)  

Patent	Application
Number	Kind Date Number Kind Date Update
WO 2005006747	A1 20050120 WO 2004JP10155 A 20040709 200515 B
EP 1645124	A1 20060412 EP 2004747621 A 20040709 200626 E
	WO 2004JP10155 A 20040709
US 20060222333	A1 20061005 US 2003486844 P 20030711 200666 E
	WO 2004JP10155 A 20040709
	US 2006563262 A 20060605
KR 2006041216	A 20060511 WO 2004JP10155 A 20040709 200672 E
	KR 2006700486 A 20060109

Priority Applications (no., kind, date): US 2003486844 P 20030711; US  
 2006563262 A 20060605

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005006747	A1	EN	148	91		
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW						
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
EP 1645124	A1	EN				PCT Application WO 2004JP10155 Based on OPI patent WO 2005006747
Regional Designated States,Original: DE FR GB						
US 20060222333	A1	EN				Related to Provisional US 2003486844 PCT Application WO 2004JP10155
KR 2006041216	A	KO				PCT Application WO 2004JP10155 Based on OPI patent WO 2005006747

Recording medium e.g. blu ray disk, includes time stamp which  
 designates active period to start at or after specific time, when active  
 periods of two consecutive display sets overlap

...OKADA T

Alerting Abstract ...USE - E.g. blu ray disk-read only memory (BD-ROM), optical disk such as digital versatile disk-read only memory (DVD-ROM), digital versatile disk-random access memory (DVD...

Original Publication Data by Authority

Inventor name & address:  
MCCROSSAN, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN J...

...OKADA T...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki

16/3,K/46 (Item 46 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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0014794514 - Drawing available  
WPI ACC NO: 2005-142200/200515  
Related WPI Acc No: 2005-142201  
XRPX Acc No: N2005-120974

Recording medium such as blu ray disk-ROM, assigns different identifier to graphics data, when active period of control segment overlap with active period of immediately preceding display set  
Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MCCROSSAN J (MCCR-I); OKADA T (OKAD-I)

Inventor: MCCROSSAN J; OKADA T  
Patent Family (7 patents, 106 countries)

Patent	Application
Number	Kind Date Number Kind Date Update
WO 2005006746	A1 20050120 WO 2004JP10153 A 20040709 200515 B
EP 1645123	A1 20060412 EP 2004747619 A 20040709 200626 E
	WO 2004JP10153 A 20040709
US 20060222334	A1 20061005 US 2003486844 P 20030711 200666 E
	WO 2004JP10153 A 20040709
	US 2006563263 A 20060606
KR 2006039429	A 20060508 WO 2004JP10153 A 20040709 200672 E
	KR 2006700481 A 20060109
CN 1849820	A 20061018 CN 200480026200 A 20040709 200715 E
CN 1849821	A 20061018 CN 200480026201 A 20040709 200715 E
EP 1645123	B1 20070912 EP 2004747619 A 20040709 200761 E
	WO 2004JP10153 A 20040709

Priority Applications (no., kind, date): US 2003486844 P 20030711; US

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005006746 A1 EN 142 41

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI

SK SL SZ TR TZ UG ZM ZW

EP 1645123 A1 EN PCT Application WO 2004JP10153

Based on OPI patent WO 2005006746

Regional Designated States,Original: DE FR GB

US 20060222334 A1 EN Related to Provisional US 2003486844

PCT Application WO 2004JP10153

KR 2006039429 A KO PCT Application WO 2004JP10153

Based on OPI patent WO 2005006746

EP 1645123 B1 EN PCT Application WO 2004JP10153

Based on OPI patent WO 2005006746

Regional Designated States,Original: DE FR GB

Recording medium such as blu ray disk-ROM, assigns different  
identifier to graphics data, when active period of control segment overlap  
with active period of immediately preceding display set

Inventor: MCCROSSAN J...

...OKADA T

Alerting Abstract ...USE - Recording medium such as blu ray  
disk-ROM (BD-ROM...

Original Publication Data by Authority

Inventor name & address:

MCCROSSAN J...

...OKADA T...

...MCCROSSAN J...

...OKADA T...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN J...

...OKADA T...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...MCCROSSAN, Joseph......OKADA, Tomoyuki

16/3,K/47 (Item 47 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0014774655 - Drawing available  
 WPI ACC NO: 2005-122323/200513  
 Related WPI Acc No: 2004-662309; 2004-662310  
 XRPX Acc No: N2005-105573  
 Recoding medium e.g. Blu-ray disk ROM for home theater system,  
 has control packet with time stamp whose value indicates time at which  
 decoded graphics data is displayed along with video stream  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MCCROSSAN J  
 (MCCR-I); MOCHINAGA K (MOCH-I); OKADA T (OKAD-I)  
 Inventor: MCCROSSAN J; MOCHINAGA K; OKADA T; MC CROSSAN J  
 Patent Family (9 patents, 107 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005004478	A1	20050113	WO 2004JP9873	A	20040705	200513 B
EP 1645122	A1	20060412	EP 2004747341	A	20040705	200626 E
			WO 2004JP9873	A	20040705	
US 20060153532	A1	20060713	US 2003485207	P	20030703	200646 E
			WO 2004JP9873	A	20040705	
			US 2005561418	A	20051219	
AU 2004300623	A1	20050113	AU 2004300623	A	20040705	200654 E
KR 2006027367	A	20060327	WO 2004JP9873	A	20040705	200662 E
			KR 2005724964	A	20051226	
ZA 200509946	A	20070530	ZA 20059946	A	20051207	200741 E
EP 1814327	A1	20070801	EP 2004747341	A	20040705	200753 E
			EP 2007104459	A	20040705	
JP 2007521737	W	20070802	WO 2004JP9873	A	20040705	200753 E
			JP 2006516863	A	20040705	
EP 1645122	B1	20070912	EP 2004747341	A	20040705	200761 E
			WO 2004JP9873	A	20040705	
			EP 2007104459	A	20070320	

Priority Applications (no., kind, date): US 2003485207 P 20030703; US  
 2005561418 A 20051219

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005004478 A1 EN 239 80

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI

SK SL SZ TR TZ UG ZM ZW

EP 1645122 A1 EN PCT Application WO 2004JP9873

Based on OPI patent WO 2005004478

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR

GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

US 20060153532 A1 EN Related to Provisional US 2003485207

PCT Application WO 2004JP9873  
AU 2004300623 A1 EN Based on OPI patent WO 2005004478  
KR 2006027367 A KO PCT Application WO 2004JP9873  
Based on OPI patent WO 2005004478  
ZA 200509946 A EN 240  
EP 1814327 A1 EN Division of application EP 2004747341

Division of patent EP 1645122  
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR  
GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR  
JP 2007521737 W JA 100 PCT Application WO 2004JP9873  
Based on OPI patent WO 2005004478  
EP 1645122 B1 EN PCT Application WO 2004JP9873  
Related to application EP 2007104459  
Related to patent EP 1814327  
Based on OPI patent WO 2005004478  
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR  
GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Recoding medium e.g. Blu-ray disk ROM for home theater system,  
has control packet with time stamp whose value indicates time at which  
decoded graphics data is displayed along with...

Inventor: MCCROSSAN J...

...OKADA T

Alerting Abstract ...USE - E.g. Blu-ray disk ROM (BD-ROM),  
optical disk such as digital versatile disk ROM (DVD-ROM). DVD-RAM,  
rewritable DVD (DVD-RW), recordable DVD (DVD-R), DVD...

Original Publication Data by Authority

Inventor name & address:

...MCCROSSAN J...

...OKADA T...

...McCrossan, Joseph...

...OKADA, Tomoyuki...

...McCrossan, Joseph...

...OKADA, Tomoyuki...

...McCrossan, Joseph, c/o Matsushita Electric Industrial Co., Ltd...

...Okada, Tomoyuki, c/o Matsushita Electric Industrial Co., Ltd...

...OKADA T...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...McCrossan, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN J...



...OKADA T

16/3,K/48 (Item 48 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0014764670 - Drawing available  
 WPI ACC NO: 2005-112328/200512  
 XRPX Acc No: N2005-097079

Volume image generator for use in disk player, converts path information defining playback of digital streams, jump commands of digital versatile disk video to playback control information of blu-ray disk  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); KOZUKA M (KOZU-I); OKADA T (OKAD-I); UESAKA Y (UESA-I)  
 Inventor: KOZUKA M; OKADA T; UESAKA Y  
 Patent Family (6 patents, 106 countries)

Patent		Application		Update	
Number	Kind	Date	Number	Kind	Date
WO 2005002232	A2	20050106	WO 2004JP9574	A	20040630
EP 1642462	A2	20060405	EP 2004747043	A	20040630
			WO 2004JP9574	A	20040630
US 20060165388	A1	20060727	US 2003483229	P	20030630
			WO 2004JP9574	A	20040630
			US 2005561208	A	20051216
KR 2006027350	A	20060327	WO 2004JP9574	A	20040630
			KR 2005724331	A	20051219
CN 1817042	A	20060809	CN 200480018719	A	20040630
JP 2007521602	W	20070802	WO 2004JP9574	A	20040630
			JP 2006516857	A	20040630

Priority Applications (no., kind, date): US 2003483229 P 20030630; US 2005561208 A 20051216

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005002232	A2	EN	105	34		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW.

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1642462 A2 EN PCT Application WO 2004JP9574  
 Based on OPI patent WO 2005002232

Regional Designated States,Original: DE FR GB NL

US 20060165388 A1 EN Related to Provisional US 2003483229  
 PCT Application WO 2004JP9574

KR 2006027350 A KO PCT Application WO 2004JP9574  
 Based on OPI patent WO 2005002232

JP 2007521602 W JA 39 PCT Application WO 2004JP9574  
 Based on OPI patent WO 2005002232

...for use in disk player, converts path information defining playback of digital streams, jump commands of digital versatile disk video to playback control information of blu-ray disk

...Inventor: OKADA T

Alerting Abstract ...path information defining playback of digital stream, jump command of digital versatile disk (DVD) video to another playback path control information of digital stream for blu-ray disk (BD). A formatter allocates the playback path control information at specific track and generates a volume image for BD.DESCRPTION - An INDEPENDENT CLAIM is also included for computer-readable program executing volume image generation for blu-ray disk (BD)...

...USE - For generating volume image for disk player that plays read only memory blu-ray disk (BD-ROM) and digital versatile disk (DVD), in production studio to distribute movie contents...

Original Publication Data by Authority

Inventor name & address:

...OKADA T...

...OKADA, Tomoyuki...

...OKADA T...

...Okada, Tomoyuki...

...OKADA, Tomoyuki

16/3,K/49 (Item 49 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014764659 - Drawing available

WPI ACC NO: 2005-112317/200512

Related WPI Acc No: 2005-112316; 2007-204995

XRPX Acc No: N2005-097068

Recording medium e.g. Blu-ray disk-ROM for use with home theater system, stores presentation control segment indicating that graphics data contained in object define segment preceding PCS, is combined with moving picture stream

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I); MCCROSSAN J (MCCR-I); OKADA T (OKAD-I); YAHATA H (YAHA-I); MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; MCCROSSAN J; OKADA T; YAHATA H; MC CROSSAN J

Patent Family (6 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005002220	A1	20050106	WO 2004JP9517	A	20040629	200512 B
EP 1641260	A1	20060329	EP 2004746986	A	20040629	200623 E
			WO 2004JP9517	A	20040629	
JP 2005511149	X	20060810	WO 2004JP9517	A	20040629	200654 E
			JP 2005511149	A	20040629	
KR 2006029239	A	20060405	WO 2004JP9517	A	20040629	200671 E
			KR 2005724954	A	20051226	
US 20060245723	A1	20061102	US 2003483228	P	20030630	200672 E
			WO 2004JP9517	A	20040629	
			US 2005561087	A	20051216	
JP 2007068191	A	20070315	JP 2005511149	A	20040629	200722 E
			JP 2006242572	A	20060907	

Priority Applications (no., kind, date): US 2003483228 P 20030630; US  
2005561087 A 20051216

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005002220 A1 JA 107 41

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI  
SK SL SZ TR TZ UG ZM ZW

EP 1641260 A1 EN PCT Application WO 2004JP9517

Based on OPI patent WO 2005002220

Regional Designated States,Original: DE ES FR GB IT

JP 2005511149 X JA 48 PCT Application WO 2004JP9517

Based on OPI patent WO 2005002220

KR 2006029239 A KO PCT Application WO 2004JP9517

Based on OPI patent WO 2005002220

US 20060245723 A1 EN Related to Provisional US 2003483228

PCT Application WO 2004JP9517

JP 2007068191 A JA 49 Division of application JP 2005511149

Recording medium e.g. Blu-ray disk-ROM for use with home  
theater system, stores presentation control segment indicating that  
graphics data contained in object define segment preceding PCS, is combined

...  
Inventor: IKEDA W...

...MCCROSSAN J...

...OKADA T...

...YAHATA H

Alerting Abstract ...USE - Recording medium e.g. Blu-ray  
disk-ROM (BD-ROM), digital versatile disk (DVD)-ROM, DVD-RAM,  
rewritable-DVD (DVD-RW, DVD+RW), recordable DVD (DVD-R,DVD+R),  
recordable-compact...

Original Publication Data by Authority

Inventor name & address:

YAHATA, Hiroshi...

...McCROSSAN, Joseph...

...OKADA, Tomoyuki...

...IKEDA, Wataru...

...YAHATA H...

...OKADA T...

...IKEDA W......Yahata, Hiroshi......McCossan, Joseph......Okada, Tomoyuki......Ikeda, Wataru......YAHATA, Hiroshi......McCROSSAN, Joseph......OKADA, Tomoyuki......IKEDA, Wataru

16/3,K/50 (Item 50 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014764658 - Drawing available

WPI ACC NO: 2005-112316/200512.

Related WPI Acc No: 2005-112317; 2007-204995

XRPX Acc No: N2005-097067

Recording medium e.g. blu-ray disk read only memory stores  
 graphics stream that constitutes interactive screen comprising arrangement  
 of buttons, each of which is changed from normal state to selected state  
 and then to active state

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I);  
 MCCROSSAN J (MCCR-I); OKADA T (OKAD-I); YAHATA H (YAHA-I); MATSUSHITA  
 DENKI SANGYO KK (MATU)

Inventor: IKEDA W; MCCROSSAN J; OKADA T; YAHATA H;  
 MC CROSSAN J

Patent Family (18 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005002219	A1	20050106	WO 2004JP9515	A	20040629	200512 B
EP 1641259	A1	20060329	EP 2004746984	A	20040629	200623 E
			WO 2004JP9515	A	20040629	
JP 2005511148	X	20060810	WO 2004JP9515	A	20040629	200654 E
			JP 2005511148	A	20040629	
KR 2006027365	A	20060327	WO 2004JP9515	A	20040629	200662 E
			KR 2005724947	A	20051226	
US 20060236218	A1	20061019	US 2003483228	P	20030630	200670 E
			WO 2004JP9515	A	20040629	
			US 2005561314	A	20051219	
IN 200502460	P2	20061013	WO 2004JP9517	A	20040629	200675 E
			IN 2005KN2460	A	20051202	
CN 1817031	A	20060809	CN 200480018700	A	20040629	200682 E
CN 1817032	A	20060809	CN 200480018704	A	20040629	200682 E
US 20060282775	A1	20061214	US 2003483228	P	20030630	200701 E
			WO 2004JP9515	A	20040629	
			US 2005561314	A	20051219	
			US 2006508094	A	20060822	
US 20060288290	A1	20061221	US 2003483228	P	20030630	200701 E
			WO 2004JP9515	A	20040629	
			US 2005561314	A	20051219	
			US 2006508132	A	20060822	

US 20060288302 A1 20061221 US 2003483228 P 20030630 200701 E  
 WO 2004JP9515 A 20040629  
 US 2005561314 A 20051219  
 US 2006508136 A 20060822  
 US 20060294542 A1 20061228 US 2003483228 P 20030630 200702 E  
 WO 2004JP9517 A 20040629  
 US 2005561087 A 20051216  
 US 2006508443 A 20060823  
 US 20060294543 A1 20061228 US 2003483228 P 20030630 200702 E  
 WO 2004JP9517 A 20040629  
 US 2005561087 A 20051216  
 US 2006508479 A 20060823  
 JP 2007053777 A 20070301 JP 2005511148 A 20040629 200718 E  
 JP 2006242569 A 20060907  
 JP 2007080485 A 20070329 JP 2005511148 A 20040629 200725 E  
 JP 2006242570 A 20060907  
 JP 2007080486 A 20070329 JP 2005511149 A 20040629 200725 E  
 JP 2006242571 A 20060907  
 JP 2007080487 A 20070329 JP 2005511149 A 20040629 200725 E  
 JP 2006242573 A 20060907  
 JP 2007087381 A 20070405 JP 2005511148 A 20040629 200726 E  
 JP 2006242568 A 20060907

Priority Applications (no., kind, date): US 2003483228 P 20030630; WO  
 2004JP9515 A 20040629; WO 2004JP9517 A 20040629; US 2005561087 A  
 20051216; US 2005561314 A 20051219; US 2006508094 A 20060822; US  
 2006508132 A 20060822; US 2006508136 A 20060822; US 2006508443 A  
 20060823; US 2006508479 A 20060823

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes  
 WO 2005002219 A1 JA 126 54

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
 MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
 TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
 FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI  
 SK SL SZ TR TZ UG ZM ZW

EP 1641259 A1 EN PCT Application WO 2004JP9515  
 Based on OPI patent WO 2005002219

Regional Designated States,Original: DE ES FR GB IT NL  
 JP 2005511148 X JA 60 PCT Application WO 2004JP9515  
 Based on OPI patent WO 2005002219

KR 2006027365 A KO PCT Application WO 2004JP9515  
 Based on OPI patent WO 2005002219

US 20060236218 A1 EN Related to Provisional US 2003483228  
 PCT Application WO 2004JP9515

IN 200502460 P2 EN PCT Application WO 2004JP9517  
 US 20060282775 A1 EN Related to Provisional US 2003483228  
 Continuation of application WO  
 2004JP9515

Division of application US 2005561314

US 20060288290 A1 EN Related to Provisional US 2003483228  
 Continuation of application WO  
 2004JP9515

Division of application US 2005561314

US 20060288302 A1 EN Related to Provisional US 2003483228  
Continuation of application WO  
2004JP9515  
Division of application US 2005561314

US 20060294542 A1 EN Related to Provisional US 2003483228  
Continuation of application WO  
2004JP9517  
Division of application US 2005561087

US 20060294543 A1 EN Related to Provisional US 2003483228  
Continuation of application WO  
2004JP9517  
Division of application US 2005561087

JP 2007053777 A JA 60 Division of application JP 2005511148

JP 2007080485 A JA 54 Division of application JP 2005511148

JP 2007080486 A JA 49 Division of application JP 2005511149

JP 2007080487 A JA 44 Division of application JP 2005511149

JP 2007087381 A JA 61 Division of application JP 2005511148

Recording medium e.g. blu-ray disk read only memory stores  
graphics stream that constitutes interactive screen comprising arrangement  
of buttons, each of which is changed from normal state to selected...

Inventor: IKEDA W...

...MCCROSSAN J...

...OKADA T...

...YAHATA H

Alerting Abstract ...USE - E.g. blu-ray disk-read only memory  
(BD-ROM), digital versatile disk-read only memory (DVD-ROM), DVD-RAM,  
rewritable digital versatile disk (DVD-RW), recordable digital versatile...

Original Publication Data by Authority

Inventor name & address:

YAHATA H...

...MCCROSSAN J...

...OKADA T...

...IKEDA W...

...YAHATA H...

...MCCROSSAN J...

...OKADA T...

...IKEDA W...

...YAHATA, Hiroshi...  
...McCROSSAN, Joseph...

...OKADA, Tomoyuki...

...IKEDA, Wataru...

...YAHATA H...

...MCCROSSAN J...

...OKADA T...

...IKEDA W...

...YAHATA H...

...OKADA T...

...IKEDA W...

...Yahata, Hiroshi...  
...McCossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...Yahata, Hiroshi...

...McCossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...Yahata, Hiroshi...

...McCossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...Yahata, Hiroshi...

...McCossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...Yahata, Hiroshi...

...McCossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...YAHATA, Hiroshi...

...McCrossan, Joseph...

...OKADA, Tomoyuki...

...IKEDA, Wataru

16/3,K/51 (Item 51 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0014764499 - Drawing available

WPI ACC NO: 2005-112157/200512

Related WPI Acc No: 2005-162724; 2005-162725

XRPX Acc No: N2005-096917

Data reproduction apparatus for home theater system, select and reproduce elementary streams according to priority attached to each elementary stream based on specific pattern

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I); OKADA T (OKAD-I); UESAKA Y (UESA-I)

Inventor: IKEDA W; OKADA T; UESAKA Y; IKEDA K; KAMISAKA Y

Patent Family (11 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2004114658	A1	20041229	WO 2004JP8830	A	20040617	200512 B
EP 1638327	A1	20060322	EP 2004746299	A	20040617	200621 E
			WO 2004JP8830	A	20040617	
JP 2006191667	A	20060720	JP 2005507270	A	20040617	200648 E
			JP 200640520	A	20060217	
JP 2005507270	X	20060727	WO 2004JP8830	A	20040617	200650 E
			JP 2005507270	A	20040617	
KR 2006027335	A	20060327	WO 2004JP8830	A	20040617	200662 E
			KR 2005723883	A	20051212	
CN 1839626	A	20060927	CN 200480023712	A	20040617	200706 E
CN 1839627	A	20060927	CN 200480023716	A	20040617	200706 E
CN 1839628	A	20060927	CN 200480023809	A	20040617	200706 E
JP 2007115398	A	20070510	JP 2005507270	A	20040617	200732 E
			JP 2006303976	A	20061109	
US 20070160350	A1	20070712	WO 2004JP8830	A	20040617	200747 E
			US 2006558766	A	20061122	
JP 3962760	B2	20070822	JP 2005507270	A	20040617	200757 E
			JP 2006303976	A	20061109	

Priority Applications (no., kind, date): JP 2003173208 A 20030618

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004114658 A1 JA 136 59

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR



HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI  
SK SL SZ TR TZ UG ZM ZW

EP 1638327 A1 EN PCT Application WO 2004JP8830

Based on OPI patent WO 2004114658

Regional Designated States, Original: DE FR GB

JP 2006191667 A JA 56 Division of application JP 2005507270

JP 2005507270 X JA 120 PCT Application WO 2004JP8830

Based on OPI patent WO 2004114658

KR 2006027335 A KO PCT Application WO 2004JP8830

Based on OPI patent WO 2004114658

JP 2007115398 A JA 62 Division of application JP 2005507270

US 20070160350 A1 EN PCT Application WO 2004JP8830

JP 3962760 B2 JA 59 Division of application JP 2005507270

Previously issued patent JP 2007115398

Inventor: IKEDA W...  
...OKADA T

Alerting Abstract ...USE - For use in home theater system to reproduce  
audio/video data recorded in blu-ray disk-ROM (BD-ROM...

Original Publication Data by Authority

Inventor name & address:

...OKADA T...

...OKADA T...

...OKADA T...

...IKEDA, Wataru...

...OKADA, Tomoyuki...

...OKADA TOMOYUKI...

...OKADA TOMOYUKI...

...IKEDA W...

...OKADA T...

...Ikeda, Wataru...

...Okada, Tomoyuki...

...IKEDA, Wataru...

...OKADA, Tomoyuki

DIALOG(R)File 350:Derwent WPIX

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0014715939 - Drawing available

WPI ACC NO: 2005-063556/200507

XRPX Acc No: N2005-055008

Storage medium e.g. blu-ray disc, rental system, has blu-ray player reading corresponding piece of content data from disc and playing back designated piece of digital work based on read piece of data, when playback is permitted

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MINAMI M (MINA-I); OHMORI M (OHMO-I); OKADA T (OKAD-I); YAMAMOTO M (YAMA-I)

Inventor: MINAMI M; OHMORI M; OKADA T; YAMAMOTO M

Patent Family (3 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
US 20040243488	A1	20041202	US 2003445328	A	20030527	200507 B
WO 2004107343	A2	20041209	WO 2004JP7231	A	20040520	200507 E
CN 1795466	A	20060628	CN 200480014734	A	20040520	200672 E

Priority Applications (no., kind, date): US 2003445328 A 20030527

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

US 20040243488 A1 EN 34 15

WO 2004107343 A2 EN

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

Storage medium e.g. blu-ray disc, rental system, has blu-ray player reading corresponding piece of content data from disc and playing back designated piece of digital work based on read piece of data, when playback...

...Inventor: OKADA T

Alerting Abstract ...NOVELTY - The system has a blu-ray player (20) judging whether playback of a designated piece of digital work is permitted based on a read piece of content data when a storage medium e.g. blu-ray disc, and semiconductor memory are set. The player reads a corresponding piece of data from the disc and plays back the designated piece of work...

...USE - Used for renting a storage medium e.g. DVD or Blu-ray disc...

...ADVANTAGE - The blu-ray player effectively prevents unauthorized use of the rental information table, thus enabling a rental agent to easily protect digital work...

...20 Blu-ray player......50 Blu-ray disc

Original Publication Data by Authority

Inventor name &amp; address:

...OKADA T......Okada, Tomoyuki......OKADA, Tomoyuki

16/3,K/53 (Item 53 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014623034 - Drawing available

WPI ACC NO: 2004-805022/200479

XRPX Acc No: N2004-634606

Recording medium e.g. readable compact disk stores window information specifying width, height and position of window on plane memory of

reproduction apparatus that combines graphics with moving pictures

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC

IND CO LTD (MATU); MCCROSSAN J (MCCR-I); OGAWA T (OGAW-I); OKADA T

(OKAD-I)

Inventor: MCCROSSAN J; OGAWA T; OKADA T

Patent Family (10 patents, 107 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2004098193	A2	20041111	WO 2004JP6074	A	20040427	200479 B
EP 1620855	A2	20060201	EP 2004729754	A	20040427	200612 E
			WO 2004JP6074	A	20040427	
AU 2004234798	A1	20041111	AU 2004234798	A	20040427	200615 E
JP 3803366	B1	20060802	WO 2004JP6074	A	20040427	200652 E
			JP 2005518547	A	20040427	
KR 2005121271	A	20051226	WO 2004JP6074	A	20040427	200652 E
			KR 2005720409	A	20051027	
JP 2006518946	W	20060817	WO 2004JP6074	A	20040427	200654 E
			JP 2005518547	A	20040427	
JP 2006246496	A	20060914	JP 2005518547	A	20040427	200660 E
			JP 200679973	A	20060323	
CN 1781153	A	20060531	CN 200480011555	A	20040427	200663 E
US 20070057969	A1	20070315	US 2003465972	P	20030428	200722 E
			WO 2004JP6074	A	20040427	
			US 2006554627	A	20061018	
ZA 200508211	A	20070328	ZA 20058211	A	20051011	200728 E

Priority Applications (no., kind, date): US 2003465972 P 20030428; US 2006554627 A 20061018

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004098193 A2 EN 117 42

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI

SK SL SZ TR TZ UG ZM ZW

EP 1620855 A2 EN PCT Application WO 2004JP6074

Based on OPI patent WO 2004098193



Regional Designated States, Original: AT BE BG CH CY CZ DE DK EE ES FI FR

GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

AU 2004234798 A1 EN Based on OPI patent WO 2004098193

JP 3803366 B1 JA 49 PCT Application WO 2004JP6074

Based on OPI patent WO 2004098193

KR 2005121271 A KO PCT Application WO 2004JP6074

Based on OPI patent WO 2004098193

JP 2006518946 W JA 62 PCT Application WO 2004JP6074

Based on OPI patent WO 2004098193

JP 2006246496 A JA 48 Division of application JP 2005518547

US 20070057969 A1 EN Related to Provisional US 2003465972

PCT Application WO 2004JP6074

ZA 200508211 A EN 134

Inventor: MCCROSSAN J...

...OKADA T

Alerting Abstract ...disk such as flexible disk, super disk, zip, click for reproduction apparatus (claimed) such as object ring buffer (ORB), Jaz, SparQ, SyJet, EZFley, micro derive, blu-ray disk ROM (BD-ROM) and TV. Used for industrial application such as film industry and consumer product industry...

Original Publication Data by Authority

Inventor name & address:

OKADA T...

...MCCROSSAN J...

...MCCROSSAN J...

...OKADA T...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN JOSEPH...

...OKADA TOMOYUKI...

...MCCROSSAN J...

...OKADA T...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki...

...MCCROSSAN J...

...OKADA T

16/3,K/54 (Item 54 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0014470841 - Drawing available

WPI ACC NO: 2004-662301/200464

XRPX Acc No: N2004-524399

Audio visual reproduction system for digital versatile disk, receives  
decoded video output and multiple subtitle outputs, to produce rendered  
video output

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); KOZUKA M (KOZU-I)  
; MCCROSSAN J (MCCR-I); MINAMI M (MINA-I)

Inventor: KOZUKA M; MC CROSSAN J; MINAMI M; MCCROSSAN J

Patent Family (5 patents, 107 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2004077811	A2	20040910	WO 2004US5245	A	20040220	200464 B
EP 1604519	A2	20051214	EP 2004713447	A	20040220	200582 E
			WO 2004US5245	A	20040220	
CN 1762155	A	20060419	CN 200480007439	A	20040220	200654 E
JP 2006521042	W	20060914	WO 2004US5245	A	20040220	200660 E
			JP 2006503789	A	20040220	
US 20060210245	A1	20060921	US 2003449162	P	20030221	200663 E
			WO 2004US5245	A	20040220	
			US 2006546463	A	20060531	

Priority Applications (no., kind, date): US 2003449162 P 20030221; US  
2006546463 A 20060531

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004077811 A2 EN 63 13

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL  
SZ TR TZ UG ZM ZW

EP 1604519 A2 EN PCT Application WO 2004US5245

Based on OPI patent WO 2004077811

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

JP 2006521042- W JA 33 PCT Application WO 2004US5245

Based on OPI patent WO 2004077811

US 20060210245 A1 EN Related to Provisional US 2003449162

PCT Application WO 2004US5245

...Inventor: MCCROSSAN J

Alerting Abstract ...USE - For reproducing audio-visual (AV) data from  
digital versatile disk (DVD), high density DVD (HD-DVD), blu-  
ray disk (BD).

Original Publication Data by Authority

Inventor name &amp; address:

...McCrossan, Joseph

16/3,K/55 (Item 55 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014444979 - Drawing available

WPI ACC NO: 2004-635743/200461

XRPX Acc No: N2004-502466

Recording media e.g. Blu-ray disk-read only memory for movie distribution, stores reproduction interval data correlated with filtering specification which specifies whether reproduction of elementary stream is permitted

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: IKEDA W; KOZUKA M; OKADA T; UESAKA Y

Patent Family (7 patents, 107 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2004075547	A1	20040902	WO 2004JP1790	A	20040218	200461 B
EP 1603335	A1	20051207	EP 2004712174	A	20040218	200580 E
			WO 2004JP1790	A	20040218	
JP 3779724	B2	20060531	WO 2004JP1790	A	20040218	200636 E
			JP 2005502732	A	20040218	
JP 2005502732	X	20060601	WO 2004JP1790	A	20040218	200637 E
			JP 2005502732	A	20040218	
JP 2006191653	A	20060720	JP 2005502732	A	20040218	200648 E
			JP 200614146	A	20060123	
CN 1751509	A	20060322	CN 200480004512	A	20040218	200649 E
KR 2005102645	A	20051026	WO 2004JP1790	A	20040218	200649 E
			KR 2005715045	A	20050816	

Priority Applications (no., kind, date): US 2003447789 P 20030219

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004075547 A1 JA 83 10

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL

SZ TR TZ UG ZM ZW

EP 1603335 A1 EN PCT Application WO 2004JP1790

Based on OPI patent WO 2004075547

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

JP 3779724 B2 JA 34 PCT Application WO 2004JP1790

Based on OPI patent WO 2004075547

JP 2005502732 X JA 75 PCT Application WO 2004JP1790

Based on OPI patent WO 2004075547

JP 2006191653 A JA 35 Division of application JP 2005502732

KR 2005102645 A KO PCT Application WO 2004JP1790

Based on OPI patent WO 2004075547

Recording media e.g. Blu-ray disk-read only memory for movie distribution, stores reproduction interval data correlated with filtering specification which specifies whether reproduction of elementary stream is permitted

Inventor: IKEDA W...

...OKADA T

Original Publication Data by Authority

Inventor name & address:

OKADA T...

...IKEDA W...

...OKADA, Tomoyuki...

...IKEDA, Wataru...

...OKADA T...

...IKEDA W...

...OKADA, Tomoyuki...

...IKEDA, Wataru

16/3,K/56 (Item 56 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014145243 - Drawing available

WPI ACC NO: 2004-330031/200430

XRPX Acc No: N2004-263367

Optical disk player has audio decoder and video decoder to respectively acquire audio data and video data from audio-video stream read from optical disk and hard disk

Patent Assignee: HAMASAKA H (HAMA-I); IKEDA W (IKED-I); KOZUKA M (KOZU-I); MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU); NAKAMURA K (NAKA-I); OKADA T (OKAD-I)

Inventor: HAMASAKA H; IKEDA W; KOZUKA M; NAKAMURA K; OKADA T

Patent Family (13 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2004030356	A1	20040408	WO 2003JP12127	A	20030924	200430 B
AU 2003268656	A1	20040419	AU 2003268656	A	20030924	200462 E
EP 1553769	A1	20050713	EP 2003748559	A	20030924	200546 E
			WO 2003JP12127	A	20030924	
JP 2004539489	X	20060126	WO 2003JP12127	A	20030924	200608 E
			JP 2004539489	A	20030924	
JP 3749910	B2	20060301	WO 2003JP12127	A	20030924	200617 E
			JP 2004539489	A	20030924	
TW 200416687	A	20040901	TW 2003126393	A	20030924	200624 E
JP 2006107723	A	20060420	JP 2004539489	A	20030924	200627 E
			JP 2005300956	A	20051014	
JP 2006107724	A	20060420	JP 2004539489	A	20030924	200627 E
			JP 2005300957	A	20051014	
JP 2006107725	A	20060420	JP 2004539489	A	20030924	200627 E
			JP 2005300958	A	20051014	

JP 2006109494 A 20060420 JP 2004539489 A 20030924 200627 E  
 JP 2005300959 A 20051014  
 US 20060098936 A1 20060511 US 2002413153 P 20020925 200633 E  
 WO 2003JP12127 A 20030924  
 US 2005528969 A 20051003  
 CN 1701607 A 20051123 CN 2003825376 A 20030924 200636 E  
 KR 2005059191 A 20050617 WO 2003JP12127 A 20030924 200641 E  
 KR 2005705099 A 20050324

Priority Applications (no., kind, date): US 2005528969 A 20051003; US  
 2002413153 P 20020925

# Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004030356 A1 JA 187 64

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY  
 BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU  
 ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX  
 MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
 UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI  
 FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ  
 TR TZ UG ZM ZW

AU 2003268656 A1 EN Based on OPI patent WO 2004030356

EP 1553769 A1 EN PCT Application WO 2003JP12127

Based on OPI patent WO 2004030356

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

JP 2004539489 X JA 125 PCT Application WO 2003JP12127

Based on OPI patent WO 2004030356

JP 3749910 B2 JA 62 PCT Application WO 2003JP12127

Based on OPI patent WO 2004030356

TW 200416687 A ZH

JP 2006107723 A JA 63 Division of application JP 2004539489

JP 2006107724 A JA 61 Division of application JP 2004539489

JP 2006107725 A JA 62 Division of application JP 2004539489

JP 2006109494 A JA 62 Division of application JP 2004539489

US 20060098936 A1 EN Related to Provisional US 2002413153

PCT Application WO 2003JP12127

KR 2005059191 A KO PCT Application WO 2003JP12127

Based on OPI patent WO 2004030356

...Inventor: IKEDA W...

...OKADA T

Alerting Abstract ...NOVELTY - A controller (16) reads out audio-video  
 (AV) stream recorded on blu-ray disk ROM (BD-ROM) and a hard  
 disk (HD) (12). An audio decoder (6) and a video decoder (4) respectively  
 acquires the audio data and...

...USE - For reproducing audio/video data recorded in optical disk  
 (claimed) such as blu-ray disk ROM (BD-ROM).



Inventor name &amp; address:

...OKADA T......IKEDA W......IKEDA W......OKADA T......IKEDA, Wataru......OKADA, Tomoyuki......IKEDA W......OKADA T......IKEDA W......OKADA T......Ikeda, Wataru......Okada, Tomoyuki......IKEDA, Wataru......OKADA, Tomoyuki

16/3,K/57 (Item 57 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014110876 - Drawing available

WPI ACC NO: 2004-295193/200427

XRPX Acc No: N2004-234466

Blu-ray disk ROM stores movie data along with enhanced mode  
 senario described by java language and markup language for indicating  
 control procedure for reproduction device

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I);  
 KOZUKA M (KOZU-I); NAKAMURA K (NAKA-I); OKADA T (OKAD-I); UESAKA Y  
 (UESA-I); MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; KOZUKA M; NAKAMURA K; OKADA T; UESAKA Y

Patent Family (9 patents, 105 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
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WO 2004025651	A1	20040325	WO 2003JP11679	A	20030912	200427 B
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AU 2003264414	A1	20040430	AU 2003264414	A	20030912	200462 E
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EP 1551027	A1	20050706	EP 2003795416	A	20030912	200544 E
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			WO 2003JP11679	A	20030912	
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JP 2004535956	X	20060112	WO 2003JP11679	A	20030912	200604 E
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			JP 2004535956	A	20030912	
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CN 1695197	A	20051109	CN 2003825090	A	20030912	200618 E
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US 20060143666	A1	20060629	US 2002409999	P	20020912	200643 E
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			US 2003440623	P	20030117	
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			WO 2003JP11679	A	20030912	
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			US 2005525788	A	20050926	
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KR 2005043946	A	20050511	WO 2003JP11679	A	20030912	200658 E
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			KR 2005704223	A	20050311	
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JP 2006277932	A	20061012	JP 2004535956	A	20030912	200668 E
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JP 2006158612 A 20060607  
 JP 3837427 B2 20061025 WO 2003JP11679 A 20030912 200670 E  
 JP 2004535956 A 20030912

Priority Applications (no., kind, date): US 2002409999 P 20020912; US  
 2003440623 P 20030117; US 2005525788 A 20050926

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2004025651 A1 JA 157 57

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY  
 BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU  
 ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX  
 MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ  
 UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI  
 FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ  
 TR TZ UG ZM ZW

AU 2003264414 A1 EN Based on OPI patent WO 2004025651

EP 1551027 A1 EN PCT Application WO 2003JP11679

Based on OPI patent WO 2004025651

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

JP 2004535956 X JA 71 PCT Application WO 2003JP11679

Based on OPI patent WO 2004025651

US 20060143666 A1 EN Related to Provisional US 2002409999

Related to Provisional US 2003440623

PCT Application WO 2003JP11679

KR 2005043946 A KO PCT Application WO 2003JP11679

Based on OPI patent WO 2004025651

JP 2006277932 A JA 59 Division of application JP 2004535956

JP 3837427 B2 JA 61 PCT Application WO 2003JP11679

Based on OPI patent WO 2004025651

**Blu-ray** disk ROM stores movie data along with enhanced mode  
 senario described by java language and markup language for indicating  
 control procedure for reproduction device

Inventor: **IKEDA W...**

#### **...OKADA T**

Alerting Abstract ...NOVELTY - The **blu-ray** disk-ROM (BD-ROM)  
 stores an enhanced mode senario described by java language and markup  
 language along with the movie object, which indicates the control...

...USE - Recording medium e.g. **blu-ray** disk-ROM (BD-ROM).

Original Publication Data by Authority

Inventor name & address:

**OKADA T...**

**...IKEDA W...**

**...OKADA T...**

**...IKEDA W...**

...OKADA, Tomoyuki...

...IKEDA, Wataru...

...OKADA T...

...IKEDA W...

...Okada, Tomoyuki...

...Ikeda, Wataru...

...OKADA, Tomoyuki...

...IKEDA, Wataru

16/3,K/58 (Item 58 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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02132301

STREAM REPRODUCTION DEVICE AND STREAM SUPPLY DEVICE  
STROMWIEDERGABEVORRICHTUNG UND STROMBEREITSTELLUNGSVORRICHTUNG  
DISPOSITIF DE REPRODUCTION EN CONTINU ET DISPOSITIF D'ALIMENTATION EN  
CONTINU

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshic/o Matsushita El Ind Co, Ltd, 19F Matsushita IMP

Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

OKADA, Tomoyukic/o Matsushita El Ind Co, Ltd, 19F Matsushita IMP

Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

KAWAMURA, Akihisac/o Matsushita El Ind Co, Ltd, 19F Matsushita IMP Bldg.,  
3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721),  
Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1783769 A1 070509 (Basic)  
WO 2006088145 060824

APPLICATION (CC, No, Date): EP 2006713995 060217; WO 2006JP2854 060217

PRIORITY (CC, No, Date): JP 200541975 050218

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; MK; YU

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0020/10 A I F B 20060101 20060830 H EP

ABSTRACT WORD COUNT: 88

NOTE:

Figure number on first page: 25

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200719 263

SPEC A (English) 200719 23968

Total word count - document A 24231

Total word count - document B 0

Total word count - documents A + B 24231

## INVENTOR:

YAHATA, Hiroshic/o Matsushita El Ind Co, Ltd...

...JP)

OKADA, Tomovukic/o Matsushita El Ind Co, Ltd...

...SPECIFICATION devices, and a command-based execution environment. The other is an operation environment of Java (TM) virtual machines. The former operation environment is called an HDMV mode, whereas the latter operation environment is called a BD-Jmode. Since there are these two operation environments, dynamic scenarios are written while assuming either of the two operation environments. A dynamic scenario based on the HDMV mode is called a Movie Object, whilst a dynamic scenario based on the BD-J mode is called a BD-J Object.

A Movie Object...

...and other image data. Hence the Java application can achieve a GUI framework that differs from a GUI realized by an IG stream in the HDMV mode. The GUI framework in the Java application contains a HAVi framework defined by GEM 1.0.2, and includes a remote control navigation mechanism...

16/3,K/59 (Item 59 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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02119896

READING DEVICE, PROGRAM, AND READING METHOD  
LESEVORRICHTUNG, PROGRAMM, UND LESEMETHODE  
DISPOSITIF DE LECTURE, PROGRAMME, ET PROCEDE DE LECTURE  
PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

IKEDA, Wataruc/o Matsushita El. Ind. Co., Ltd., 19F Matsushita IMP  
Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721),  
Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1764799 A1 070321 (Basic)

WO 2006082892 060810

APPLICATION (CC, No, Date): EP 2006712909 060202; WO 2006JP1766 060202

PRIORITY (CC, No, Date): JP 200528748 050204

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; MK; YU

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0027/00 A I F B 20060101 20060811 H EP

G11B-0020/10 A I L B 20060101 20060811 H EP

G11B-0020/12 A I L B 20060101 20060811 H EP

H04N-0005/85 A I L B 20060101 20060811 H EP

H04N-0005/93 A I L B 20060101 20060811 H EP

ABSTRACT WORD COUNT: 111

NOTE:

Figure number on first page: 29

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200712 715

SPEC A (English) 200712 19148  
Total word count - document A 19863  
Total word count - document B 0  
Total word count - documents A + B 19863

## INVENTOR:

IKEDA, Wataru/o Matsushita El. Ind. Co., Ltd...

## ...SPECIFICATION set

24 CPU  
25 communication unit  
26 operation receiving unit  
30 Virtual File System  
31 presentation engine  
32 playback control engine  
33 module manager  
34 HDMV module  
35 BD-J platform  
36 Java(TM))) virtual machine  
37 application manager  
38 function control unit

## [Best Mode for Carrying Out the Invention]

EMBODIMENT...command-based execution environment. The other mode is an operating environment for Java(TM))) Virtual Machines. The former of the two operating environments is called HDMV mode, and the latter is called BD-J mode. Since these two operating environments exist, a dynamic scenario is described for either one of the operating environments. A dynamic scenario for HDMV mode is called a Movie Object. On the other hand, a dynamic scenario for BD-J mode is called a BD-J Object.

First, a...

...JPEG), PNG and other image data. Herewith, a Java(TM))) application can realize a different GUI framework from one realized by an IG stream in HDMV mode. The GUI framework in a Java(TM))) application includes HAVi framework specified in the GEM 1.0.2 and a remote control navigation mechanism...

...J Object is activated can be considered as a playback period of the Title. Similarly, since a Title is made up with one or more HDMV Objects, a period during which the HDMV Objects are activated can be considered as a playback period of the Title.

That is, FirstPlay Title, TopMenu Title, and other Titles are all made ...ROM or the local storage 20, and writes the uncompressed graphics to the Interactive Graphics plane 12.

To the Interactive Graphics (IG) plane 12, in HDMV mode, uncompressed graphics obtained by decode processing of the IG decoder 11 are written. In BD-J mode, characters and graphics drawn by an application...

...module manager 33 is present; and

c2) Layer on which the BD-J platform 35 is present. First, the Virtual File System 30 to the HDMV module 34 belonging to Layers 2 and 3 are described.

The virtual File System 30 is a virtual file system for integrally handling the download...

...and playback stop according to the current PL information and Clip information. These functions (i) and (ii) are executed according to

function calls from the **HDMV** module 34 and the BD-J module 35.

The module manager 33 holds Index.bdmv read from the BD-ROM and performs branch control. The...

...event to a dynamic scenario constituting the current title and by issuing an Activate event to a dynamic scenario constituting the branch-destination title.

The **HDMV** module 34 is the main execution body of the **HDMV** mode. The **HDMV** module 33 reads a MovieObject into the memory, decodes a navigation command described in the Movie Object, and executes a function call to the playback control engine 32 based on the result of the decoding.

Thus concludes the descriptions of the presentation engine 31 to the **HDMV** module 34. The BD-J platform 35 is described next.

The BD-J platform 35 is a so-called Java(TM)) platform, and has a...

16/3,K/60 (Item 60 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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02116441

IMAGE ENCODING DEVICE, AND IMAGE DECODING DEVICE  
BILDCODIERUNGSEINRICHTUNG UND BILDDECODIERUNGSEINRICHTUNG  
DISPOSITIF DE CODAGE D'IMAGES ET DISPOSITIF DE DECODAGE D'IMAGES  
PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

TOMA, Tadamasa, c/o Mats. El. Ind. Co., IPROC, IP Dev, Ct., 19F Mats. IMP  
Bld., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

KADONO, Shinya, c/o Mats. El. Ind. Co., IPROC, IP Dev Ct., 19F Mats. IMP  
Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

**OKADA, Tomoyuki, c/o Mats. El. Ind. Co., IPROC, IP Dev. ct., 19F**  
Matsushita IMP Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka  
540-6319, (JP)

**IKEDA, Wataru, c/o Matsushita El. Ind. Co., IP Dev. Ct., 19F Mats.**  
IMP Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319,  
(JP)

LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100151), Patentanwälte Rechtsanwälte  
Postfach 10 60 78, 28060 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1784014 A1 070509 (Basic)

WO 2006019014 060223

APPLICATION (CC, No, Date): EP 2005770411 050809; WO 2005JP14593 050809

PRIORITY (CC, No, Date): JP 2004237526 040817

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;  
HU; IE; IS; IT; LI; LT; LU; LV; MC; NL; PL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; BA; HR; MK; YU

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20060823 H EP

H04N-0005/91 A I L B 20060101 20060823 H EP

G11B-0020/10 A I L B 20060101 20060823 H EP

G11B-0020/12 A I L B 20060101 20060823 H EP

H04N-0007/26 A I L B 20060101 20060823 H EP

ABSTRACT WORD COUNT: 150

NOTE:

Figure number on first page: 005

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200719 1256

SPEC A (English) 200719 18506

Total word count - document A 19762

Total word count - document B 0

Total word count - documents A + B 19762

INVENTOR:

... JP)

OKADA, Tomoyuki,c/o Mats. El. Ind. Co., IPROC, IP Dev. ct...

...JP)

IKEDA, Wataru,c/o Matsushita El. Ind. Co., IP Dev. Ct...

...SPECIFICATION the subtitle data that is multiplexed together with the video data is not necessarily decoded or reproduced at the same timing.

Meanwhile, there is the Blu-ray Disc (BD) standard as a next-generation DVD standard.

While a DVD is intended for the package distribution of video with standard image quality (standard...

...of analog broadcasting (the DVD Video Recording format), a BD is capable of recording digital broadcasting with high-definition image quality as it is (the Blu-ray Disc Rewritable format; hereinafter referred to as the BD-RE).

However, since the BD-RE format widely supports the recording of digital broadcasting, information that...

16/3,K/61 (Item 61 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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02030579

REPRODUCTION DEVICE, PROGRAM, AND REPRODUCTION METHOD

WIEDERGABEEINRICHTUNG, PROGRAMM UND WIEDERGABEVERFAHREN

DISPOSITIF DE REPRODUCTION, PROGRAMME, ET PROCEDE DE REPRODUCTION

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

IKEDA, Wataru,c/o Mat. Elec. Ind. Co., Ltd., 19F Mat. IMP Bldg. 3-7, Shiomi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

OKADA, Tomoyukic/o Mat. Elec. Ind. Co., Ltd., 19F Mat. IMP Bldg. 3-7, Shiomi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1758122 A1 070228 (Basic)

WO 2005124780 051229

APPLICATION (CC, No, Date): EP 2005751343 050617; WO 2005JP11164 050617

PRIORITY (CC, No, Date): JP 2004181400 040618; JP 2004195439 040701

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0027/00 A I F B 20060101 20060106 H EP  
 G09G-0005/22 A I L B 20060101 20060106 H EP  
 G11B-0020/10 A I L B 20060101 20060106 H EP  
 G11B-0027/34 A I L B 20060101 20060106 H EP  
 H04N-0005/93 A I L B 20060101 20060106 H EP

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 37

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200709 656

SPEC A (English) 200709 23270

Total word count - document A 23926

Total word count - document B 0

Total word count - documents A + B 23926

INVENTOR:

IKEDA, Wataru/o Mat. Elec. Ind. Co., Ltd...

...JP)

OKADA, Tomoyukic/o Mat. Elec. Ind. Co., Ltd...

...SPECIFICATION for displaying subtitles represented by text codes, in synchronization with each picture of a motion picture. This is one of techniques unique to BD-ROM (Blu-ray Disc Read Only Memory) playback apparatuses.

When a BD-ROM playback apparatus displays a text subtitle, the BD-ROM playback apparatus performs a control to...

16/3,K/62 (Item 62 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2007 European Patent Office. All rts. reserv.

01997722

INFORMATION RECORDING MEDIUM WHEREIN STREAM CONVERTIBLE AT HIGH-SPEED IS RECORDED, AND RECORDING APPARATUS AND RECORDING METHOD THEREFOR  
 INFORMATIONSAUFZEICHNUNGSMEDIUM, WORAUF EIN MIT HOHER GESCHWINDIGKEIT UMSETZBARER STROM AUFGEZEICHNET WIRD, UND AUFZEICHNUNGSVORRICHTUNG UND AUFZEICHNUNGSVERFAHREN DAFUR  
 SUPPORT D'ENREGISTREMENT D'INFORMATIONS DANS LEQUEL EST ENREGISTRE UN FLUX CONVERTIBLE A GRANDE VITESSE, DISPOSITIF D'ENREGISTREMENT ET PROCEDE D'ENREGISTREMENT CORRESPONDANT

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216880), 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd., 19F Matsushita IMPbldg, 3-7,Shiromi 1-chome,Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100153), Patentanwalte Rechtsanwälte  
 Postfach 10 60 78, 28060 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1737229 A1 061227 (Basic)

WO 2005099258 051020

APPLICATION (CC, No, Date): EP 2005728781 050405; WO 2005JP6654 050405

PRIORITY (CC, No, Date): JP 2004112981 040407

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;



HU; IE; IS; IT; LI; LT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/92 ; G11B-020/10 ; G11B-020/12 ;

G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20051028 H EP

G11B-0020/10 A I L B 20060101 20051028 H EP

G11B-0020/12 A I L B 20060101 20051028 H EP

G11B-0027/00 A I L B 20060101 20051028 H EP

ABSTRACT WORD COUNT: 110

NOTE:

Figure number on first page: 92

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200652 868

SPEC A (English) 200652 33754

Total word count - document A 34622

Total word count - document B 0

Total word count - documents A + B 34622

INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd...

...SPECIFICATION are also available. As a standard for such an information recording medium in the next generation, which is suitable for recording digital broadcasting, there is Blu-ray Disc standard ("BD standard").

The next generation digital broadcast recorder (Blu-ray Disc recorder) does not convert broadcasted MPEG-TS but records mainly data in MPEG-TS format according to a format of digital broadcasting. The next...

...connected Constrained SESF (connection(underscore)condition = 3, encode(underscore)condition = 01b)

FIG. 94A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 94B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 95A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 95B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 96 describes the time stamp...respectively. Various seamless connection methods are known from the literature (see, for example, <PATCIT ID=PCIT0003 DNUM=US5923869A> USP No. 5,923,869 <PATCIT>).

The Blu-Ray Disc (BD) standard, that is, a standard for next-generation recording media, describes, for each Cell in a PGC, the connection to the chronologically preceding...

16/3,K/63 (Item 63 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2007 European Patent Office. All rts. reserv.

01994403

INFORMATION RECORDING APPARATUS AND INFORMATION CONVERTING METHOD

INFORMATIONSAUFNAHMEEINRICHTUNG UND INFORMATIONSVERRARBEITUNGSMETHODE

DISPOSITIF D'ENREGISTREMENT D'INFORMATIONS ET METHODE DE CONVERSION  
D'INFORMATIONS

## PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7532910), 1006 Oaza Kadoma,,  
Kadoma-shi, Osaka Osaka 571-0051, (JP), (Applicant designated States:  
all)

## INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd., 1006, Oaza  
Kadoma, Kadoma shi, Osaka 571-8501, (JP)

## LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100153), Patentanwälte Rechtsanwälte  
Postfach 10 60 78, 28060 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1737228 A1 061227 (Basic)

WO 2005099260 051020

APPLICATION (CC, No, Date): EP 2005728697 050405; WO 2005JP6663 050405

PRIORITY (CC, No, Date): JP 2004112982 040407

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/92; G11B-020/10; G11B-020/12;  
G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20051026 H EP

G11B-0020/10 A I L B 20060101 20051026 H EP

G11B-0020/12 A I L B 20060101 20051026 H EP

G11B-0027/00 A I L B 20060101 20051026 H EP

ABSTRACT WORD COUNT: 99

## NOTE:

Figure number on first page: 94A 94B

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200652	549
SPEC A	(English)	200652	33007
Total word count - document A			33556
Total word count - document B			0
Total word count - documents A + B			33556

## INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd...

...SPECIFICATION are also available. As a standard for such an information recording medium in the next generation, which is suitable for recording digital broadcasting, there is Blu-ray Disc standard ("BD standard").

The next generation digital broadcast recorder (Blu-ray Disc recorder) does not convert broadcasted MPEG-TS but records mainly data in MPEG-TS format according to a format of digital broadcasting. The next...

...connected Constrained SESF (connection(underscore)condition = 3, encode(underscore)condition = 01b)

FIG. 94A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 94B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 95A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 95B describes the relationship to audio data after conversion to one DVD

standard VOB.

FIG. 96 describes the time stamp...respectively. Various seamless connection methods are known from the literature (see, for example, <PATCIT ID=PCIT0003 DNUM=US5923869A> USP No. 5,923,869 </PATCIT>).

The **Blu-Ray** Disc (BD) standard, that is, a standard for next-generation recording media, describes, for each Cell in a PGC, the connection to the chronologically preceding...

16/3,K/64 (Item 64 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01994339

INFORMATION RECORDING MEDIUM WHEREIN STREAM CONVERTIBLE AT HIGH-SPEED IS  
RECORDED, AND RECORDING APPARATUS AND RECORDING METHOD THEREFOR  
INFORMATIONSAUFZEICHNUNGSMEDIUM WORIN EIN WANDELBARER DATENSTROM BEI HOHER  
GESCHWINDIGKEIT AUFGEZEICHNET WIRD, UND AUFNAHMEVORRICHTUNG UND  
AUFNAHMEVERFAHREN DAFUR  
SUPPORT D'ENREGISTREMENT D'INFORMATIONS DANS LEQUEL EST ENREGISTRE UN FLUX  
CONVERTIBLE A GRANDE VITESSE, APPAREIL D'ENREGISTREMENT ET PROCEDE  
D'ENREGISTREMENT AFFERENT

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216880), 1006, Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshic/o Matsushita El Ind Co, Ltd, 19F Matsushita IMP  
Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Keck, Stephan (89551), Eisenfuhr, Speiser & Partner Patentanwalte  
Rechtsanwalte Postfach 10 60 78, 28060 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1737227 A1 061227 (Basic)  
WO 2005099259 051020

APPLICATION (CC, No, Date): EP 2005728417 050405; WO 2005JP6658 050405

PRIORITY (CC, No, Date): JP 2004112962 040407

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/92; G11B-020/10; G11B-020/12;  
G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20051022 H EP

G11B-0020/10 A I L B 20060101 20051022 H EP

G11B-0020/12 A I L B 20060101 20051022 H EP

G11B-0027/00 A I L B 20060101 20051022 H EP

ABSTRACT WORD COUNT: 112

NOTE:

Figure number on first page: 0090

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200652 940

SPEC A (English) 200652 33689

Total word count - document A 34629

Total word count - document B 0

Total word count - documents A + B 34629

INVENTOR:

YAHATA, Hiroshic/o Matsushita El Ind Co, Ltd...

...SPECIFICATION are also available. As a standard for such an information recording medium in the next generation, which is suitable for recording digital broadcasting, there is Blu-ray Disc standard ("BD standard").

The next generation digital broadcast recorder (Blu-ray Disc recorder) does not convert broadcasted MPEG-TS but records mainly data in MPEG-TS format according to a format of digital broadcasting. The next...

...seamlessly connected Constrained SESF (connection condition = 3, encode(underscore)condition = 01b)

FIG. 94A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 94B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 95A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 95B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 96 describes the time stamp...respectively. Various seamless connection methods are known from the literature (see, for example, <PATCIT ID=PCIT0003 DNUM=US5923869A> USP No. 5,923,869 </PATCIT>).

The Blu-Ray Disc (BD) standard, that is, a standard for next-generation recording media, describes, for each Cell in a PGC, the connection to the chronologically preceding...

16/3,K/65 (Item 65 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01994338

INFORMATION RECORDING MEDIUM WHEREIN STREAM CONVERTIBLE AT HIGH-SPEED IS RECORDED, AND RECORDING APPARATUS AND RECORDING METHOD THEREFOR  
INFORMATIONSAUFZEICHNUNGSMEDIUM, WORAUF EIN MIT HOHER GESCHWINDIGKEIT UMSETZBARER STROM AUFGEZEICHNET WIRD, UND AUFZEICHNUNGSVORRICHTUNG UND AUFZEICHNUNGSVERFAHREN DAFUR  
SUPPORT D'ENREGISTREMENT D'INFORMATIONS DANS LEQUEL UN TRAIN CONVERTIBLE A GRANDE VITESSE EST ENREGISTRE, APPAREIL ET PROCEDE D'ENREGISTREMENT ASSOCIES

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216880), 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd., 19F Matsushita IMPbdg, 3-7,Shiromi 1-chome, Chuoku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100154), Martinistrasse 24, 28195 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1737226 A1 061227 (Basic)  
WO 2005099257 051020

APPLICATION (CC, No, Date): EP 2005728413 050405; WO 2005JP6646 050405

PRIORITY (CC, No, Date): JP 2004112983 040407

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LI; LT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/92; G11B-020/10; G11B-020/12; G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20051026 H EP

G11B-0020/10 A I L B 20060101 20051026 H EP

G11B-0020/12 A I L B 20060101 20051026 H EP

G11B-0027/00 A I L B 20060101 20051026 H EP

ABSTRACT WORD COUNT: 141

NOTE:

Figure number on first page: 92

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200652 965

SPEC A (English) 200652 33829

Total word count - document A 34794

Total word count - document B 0

Total word count - documents A + B 34794

INVENTOR:

YAHATA, Hiroshic/o Matsushita Elec. Ind. Co.,Ltd...

...SPECIFICATION are also available. As a standard for such an information recording medium in the next generation, which is suitable for recording digital broadcasting, there is Blu-ray Disc standard ("BD standard").

The next generation digital broadcast recorder (Blu-ray Disc recorder) does not convert broadcasted MPEG-TS but records mainly data in MPEG-TS format according to a format of digital broadcasting. The next...

...connected Constrained SESF (connection(underscore)condition = 3, encode(underscore)condition = 01b)

FIG. 94A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 94B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 95A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 95B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 96 describes the time stamp...respectively. Various seamless connection methods are known from the literature (see, for example, <PATCIT ID=PCIT0003 DNUM=US5923869A> USP No. 5,923,869 </PATCIT>).

The Blu-Ray Disc (BD) standard, that is, a standard for next-generation recording media, describes, for each Cell in a PGC, the connection to the chronologically preceding...

16/3,K/66 (Item 66 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01994337

INFORMATION RECORDING MEDIUM WHEREIN STREAM CONVERTIBLE AT HIGH-SPEED IS RECORDED, AND RECORDING APPARATUS AND RECORDING METHOD THEREFOR  
INFORMATIONSAUFZEICHNUNGSMEDIUM, WORAUF EIN MIT HOHER GESCHWINDIGKEIT UMSETZBARER STROM AUFGEZEICHNET WIRD, UND AUFZEICHNUNGSVORRICHTUNG UND AUFZEICHNUNGSVERFAHREN DAFUR  
SUPPORT D'ENREGISTREMENT D'INFORMATIONS DANS LEQUEL UN FLUX CONVERTIBLE A HAUTE VITESSE EST ENREGISTRE, APPAREIL ET PROCEDE D'ENREGISTREMENT

ASSOCIES

## PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

## INVENTOR:

YAHATA, Hiroshic/o Matsushita Elect.Ind.Co.,Ltd., 19F Matsushita  
IMPBlg.,3-7,Shiromi 1-chome,Chuo ku, Osaka-shi, Osaka 540-6319, (JP)

## LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100153), Patentanwälte Rechtsanwälte  
Postfach 10 60 78, 28060 Bremen, (DE)

PATENT (CC, No, Kind, Date): EP 1737225 A1 061227 (Basic)

WO 2005099256 051020

APPLICATION (CC, No, Date): EP 2005728412 050405; WO 2005JP6645 050405

PRIORITY (CC, No, Date): JP 2004112980 040407

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/92; G11B-020/10; G11B-020/12;  
G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 20060101 20051025 H EP

G11B-0020/10 A I L B 20060101 20051025 H EP

G11B-0020/12 A I L B 20060101 20051025 H EP

G11B-0027/00 A I L B 20060101 20051025 H EP

ABSTRACT WORD COUNT: 138

## NOTE:

Figure number on first page: 92

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200652	962
SPEC A	(English)	200652	33816
Total word count - document A			34778
Total word count - document B			0
Total word count - documents A + B			34778

## INVENTOR:

YAHATA, Hiroshic/o Matsushita Elect.Ind.Co.,Ltd...

...SPECIFICATION are also available. As a standard for such an information recording medium in the next generation, which is suitable for recording digital broadcasting, there is Blu-ray Disc standard ("BD standard").

The next generation digital broadcast recorder (Blu-ray

Disc recorder) does not convert broadcasted MPEG-TS but records mainly data in MPEG-TS format according to a format of digital broadcasting. The next...

...connected Constrained SESF (connection(underscore)condition = 3, encode(underscore)condition = 01b)

FIG. 94A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 94B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 95A describes the relationship to audio data at the seamless connection in the Blu-Ray Disc (BD) standard, and FIG. 95B describes the relationship to audio data after conversion to one DVD standard VOB.

FIG. 96 describes the time stamp...respectively. Various seamless

connection methods are known from the literature (see, for example,  
<PATCIT ID=PCIT0003 DNUM=US5923869A> USP No. 5,923,869 </PATCIT>).

The Blu-Ray Disc (BD) standard, that is, a standard for  
next-generation recording media, describes, for each Cell in a PGC, the  
connection to the chronologically preceding

16/3,K/67 (Item 67 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01955571

RECORDING MEDIUM, REPRODUCTION DEVICE, PROGRAM, REPRODUCTION METHOD  
AUFZEICHNUNGSMEDIUM, WIEDERGABEEINRICHTUNG, PROGRAMM, WIEDERGABEVERFAHREN  
SUPPORT D'ENREGISTREMENT, DISPOSITIF DE REPRODUCTION, PROGRAMME ET PROCEDE  
DE REPRODUCTION

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (7251800), 1006 Oaza Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

OKADA, Tomoyukic/o Matsushita El. Ind. Co., Ltd., 19F Matsushita  
IMP Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319,  
(JP)

IKEDA, Wataruc/o Matsushita El. Ind. Co., Ltd., 19F Matsushita IMP  
Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)  
UESAKA, Yasushic/o Matsushita El. Ind. Co., Ltd., 19F Matsushita IMP  
Bldg., 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721),  
Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1711012 A1 061011 (Basic)  
WO 2005067293 050721

APPLICATION (CC, No, Date): EP 2005709232 050107; WO 2005JP144 050107

PRIORITY (CC, No, Date): JP 20043856 040109

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; BA; HR; LV; MK; YU

INTERNATIONAL PATENT CLASS (V7): H04N-005/93; G11B-020/10; G11B-027/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/93 A I F B 20060101 20050725 H EP

G11B-0020/10 A I L B 20060101 20050725 H EP

G11B-0027/00 A I L B 20060101 20050725 H EP

ABSTRACT WORD COUNT: 102

NOTE:

Figure number on first page: 13

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200641 1282

SPEC A (English) 200641 14054

Total word count - document A 15336

Total word count - document B 0

Total word count - documents A + B 15336

INVENTOR:

OKADA, Tomoyukic/o Matsushita El. Ind. Co., Ltd...

...JP)

IKEDA, Wataruc/o Matsushita El. Ind. Co., Ltd...

...SPECIFICATION according to switching of playback paths as shown in FIG. 14;  
 FIG. 16 shows state transition of disk contents;  
 FIG. 17 shows Titles composed of HDMV-mode dynamic scenarios;  
 FIG. 18 shows internal structures of Titles composed of BD-J-mode dynamic scenarios (BD-J Objects);  
 FIG. 19 shows an internal...

...software stored in a ROM 21 and hardware, which are depicted in a layer model;  
 FIG. 22 is a flowchart showing process procedures of an HDMV module 33 and a BD-J module for playing a title;  
 FIG. 23A shows an internal structure of a PGC information table;  
 FIG. 23B shows...

...a command-based execution environment. The other mode is an operating environment for Java Virtual Machines. The former of the two operating environments is called HDMV mode, and the latter is called BD-J mode. Since these two operating environments exist, a dynamic scenario is described for either one of the operating environments. A dynamic scenario for HDMV mode is called a Movie Object and defined by management information. On the other hand, a dynamic scenario for BD-J mode is called a...returning again to TopMenu Title is repeated endlessly until the BD-ROM is ejected.

A Title achieving such state transition is composed of dynamic scenarios in HDMV-mode or in BD-J mode. FIG. 17 shows two Titles composed of HDMV-mode dynamic scenarios. The first row in the figure shows a given Title(title(underscore)id) which is identified by an identifier of title(underscore)...

...navigation command instructing the playback device to perform playback of the PL (PlayPL command).

By making the PL belong to the Title, the Title in HDMV mode is able to define a movie work involving video playback. Thus concludes the structure of a Title defined by HDMV-mode dynamic scenarios.

Next is described the internal structure of a Title structured by a dynamic scenario in BD-J mode. FIG. 18 shows the...

...converts text codes included in a textST stream into bitmap format using character fonts, and writes the result in the Presentation Graphics plane 7.

In HDMV mode, the I-Graphics decoder 10 decodes an IG stream read from a BD-ROM or the Local Storage 18, and writes the uncompressed graphics...

...and playback stop according to the current PL information and Clip information. These functions (i) and (ii) are executed according to function calls from the HDMV module 33 and the BD-J module 35.

That is, when a function call instructing PL playback is made, the Playback Control Engine 32 reads...of the levels c1) and c2) below. That is,

c1) Level on which the Module Manager 34 is present; and  
 c2) Level on which the HDMV module 33 and the BD-J module 35 are present. In the layer model of FIG. 33, the module manager 34 is located on the highest level.

The HDMV module 33 is the main execution body of the HDMV mode. When the module manager 34 makes an activate request



(activate(mobj(underscore)id)) that specifies a branch destination MovieObject by mobj(underscore)id, the HDMV module 33 reads MovieObject(mobj(underscore)id) into the local memory 26, decodes navigation commands described in the Movie Object, and executes a function call...

...Therefore, it is possible to prevent an application having no authorization from using the PLs.

FIG. 22 is a flowchart showing process procedures of the HDMV module 33 and BD-J module 35 for playing a title. A title playback procedure in a BD-ROM is described next with reference to...

...ROM, a scenario targeted for the process is called a current dynamic scenario. Command/Method i means, among navigation commands composing the current dynamic scenario (HDMV mode) and methods composing the dynamic scenario (BD-J mode), one to be a processing target. First, when notified of a title number for execution...

16/3,K/68 (Item 68 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01912424

RECORDING MEDIUM, PLAYBACK APPARATUS, PROGRAM, AND PLAYBACK METHOD  
AUFNAHMEMEDIUM, WIEDERGABEVORRICHTUNG, -PROGRAMM UND -METHODE  
SUPPORT D'INFORMATION, DISPOSITIF DE REPRODUCTION, PROGRAMME, ET PROCEDE DE  
REPRODUCTION

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (1855508), 1006, Oaza-Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

IKEDA, Wataru/o Mat.Elec.Ind.Co., Ltd., 19F Matsushita IMP Bldg.,  
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IWAMOTO, Hiroaki/o Mat.Elec.Ind.Co., Ltd., 19F Matsushita IMP Bldg.,  
1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

OKADA, Tomoyuki/o Mat.Elec.Ind.Co., Ltd., 19F Matsushita IMP  
Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (102461),  
Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1677302 A1 060705 (Basic)  
WO 2005036555 050421

APPLICATION (CC, No, Date): EP 2004773789 041012; WO 2004JP15339 041012

PRIORITY (CC, No, Date): JP 2003352913 031010; JP 2003379758 031110

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; HR; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): G11B-027/00; G11B-020/10; G11B-020/12;  
G11B-027/10; G06F-019/00; G06F-009/06

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0027/00 A I F B 19680901 20050423 H EP

G11B-0020/10 A I L B 19850101 20050423 H EP

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G11B-0027/10 A I L B 19680901 20050423 H EP

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NOTE:

Figure number on first page: 15

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
 FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200627	578
SPEC A	(English)	200627	25538
Total word count - document A			26116
Total word count - document B			0
Total word count - documents A + B			26116

INVENTOR:

IKEDA, Wataru/o Mat.Elec.Ind.Co., Ltd...

...JP)

OKADA, Tomoyukic/o Mat.Elec.Ind.Co., Ltd...

...SPECIFICATION based execution environment. The second mode is an operation environment of the Java Virtual Machine. Of these two operation environments, the first one is called HDMV mode, and the second one is called BD-J mode. Due to the presence of the two operation environments, the dynamic scenario is written by presuming either of the two operation environments A dynamic scenario presuming the HDMV mode is called Movie Object, and is defined by the management information. On the other hand, a dynamic scenario presuming the BD-J mode is...information and Clip information.

On the top layer is:

e) a module manager 34 that executes branching between Titles.

On a same layer between a HDMV module 33 and a module manager 34 are:

d-1) the HDMV module 33 that decodes and executes movie objects;

and

d-2) a BD-J module 35 that decodes and executes BD-J objects.

The BD...

...the current PL information and Clip information. The functions (i) and (ii) are performed in response to the function calls that are issued by the HDMV module 33, the module manager 34 and the BD-J module 35. That is to say, the playback control engine 32 executes its own functions ...

...the arrows with the signs &#x229A;2 and &#x229A;3 indicate the playback control engine 32 referencing the Clip information and the PlayList information.

The HDMV module 33 is a main body for execution in movie mode. If notified by the module manager 34 of a Movie Object that constitutes a branch destination, the HDMV module 33 reads, from the local memory 29, the Movie Object that constitutes the branch destination, decodes the navigation command written in the Movie Object...

...read from the BD-ROM, and performs a branch control . The branch control includes receiving a Title number that is a jump destination when the HDMV module 33 has executed a JumpTitle command or when the BD-J module 35 has issued a Title jump API, and notifying the Movie Object or the BD-J Object that composes the Title to the HDMV module 33 or the BD-J module 35. In FIG. 19, the arrows with signs (HamiltonOperator)0, (HamiltonOperator)1, and (HamiltonOperator)2 respectively indicate the...the branch destination label (step S33), extracts IDj from the Index of the Title number j in the Index Table (step S34), and causes the HDMV module 33 or the BD-J module 35 to execute the Movie Object or the BD-J object of the IDj (step S35).

At step...

...notification of an end of a Title from the application manager 36, and if there has been such notification (YES at step S32), causes the HDMV module 33 or the module manager 34 to execute the TopMenuOBJ that constitutes the top menu Title (step S36).

The following describes an example of...35 is this Java platform, a playback apparatus according to the present invention sharetelephone.

(K) In the layer model, the HDMV mode may be positioned on the BD-J mode. This is because especially the analysis of the dynamic scenario in the HDMV mode and the execution of the control procedure based on the dynamic scenario put light load on the playback apparatus, and there is no problem in executing the HDMV mode on the BD-J mode. Also, in the development process of the playback apparatus or a movie work, the operations can be guaranteed by...

...in Embodiment 5, a playback control can be performed in synchronization with a playback of a PL in the BD-J mode, and therefore the HDMV mode may not necessarily be provided.

(L) A navigation command may be provided for a interactive graphics stream that is to be multiplexed on an...

16/3,K/69 (Item 69 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01912421

PLAYBACK APPARATUS, PROGRAM, AND PLAYBACK METHOD  
PLAYBACKVORRICHTUNG, -PROGRAMM UND -METHODE  
APPAREIL, LOGICIEL ET METHODE DE PLAY-BACK  
PATENT ASSIGNEE:

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INVENTOR:

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Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

OKADA, Tomoyuki/o Matsushita Electric Ind Co Ltd., 19F Matsushita  
IMP Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721),  
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PATENT (CC, No, Kind, Date): EP 1675118 A1 060628 (Basic)  
WO 2005036546 050421

APPLICATION (CC, No, Date): EP 2004773786 041012; WO 2004JP15335 041012

PRIORITY (CC, No, Date): JP 2003352913 031010; JP 2003379758 031110

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; HR; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): G11B-020/10; G11B-020/12; G11B-027/00;  
G11B-027/10; G06F-019/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0020/10 A I F B 19850101 20050427 H EP

G11B-0020/12 A I L B 19850101 20050427 H EP

G11B-0027/00 A I L B 19680901 20050427 H EP

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ABSTRACT WORD COUNT: 122

NOTE:

*Date not good*

Figure number on first page: 31

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200626	442
SPEC A	(English)	200626	25469
Total word count - document A			25911
Total word count - document B			0
Total word count - documents A + B			25911

INVENTOR:

IKEDA, Wataru/o Matsushita Electric Ind. Co. Ltd...

...JP)

OKADA, Tomoyukic/o Matsushita Electric Ind Co Ltd...

...SPECIFICATION based execution environment. The second mode is an operation environment of the Java Virtual Machine. Of these two operation environments, the first one is called HDMV mode, and the second one is called BD-J mode. Due to the presence of the two operation environments, the dynamic scenario is written by presuming either of the two operation environments. A dynamic scenario presuming the HDMV mode is called Movie Object, and is defined by the management information. On the other hand, a dynamic scenario presuming the BD-J mode is...information and Clip information.

On the top layer is:

e) a module manager 34 that executes branching between Titles.

On a same layer between a HDMV module 33 and a module manager 34 are:

d-1) the HDMV module 33 that decodes and executes movie objects;

and

d-2) a BD-J module 35 that decodes and executes BD-J objects.

The BD...

...the current PL information and Clip information. The functions (i) and (ii) are performed in response to the function calls that are issued by the HDMV module 33, the module manager 34 and the BD-J module 35. That is to say, the playback control engine 32 executes its own functions

...

...the arrows with the signs &#x229A;2 and &#x229A;3 indicate the playback control engine 32 referencing the Clip information and the PlayList information.

The HDMV module 33 is a main body for execution in movie mode. If notified by the module manager 34 of a Movie Object that constitutes a branch destination, the HDMV module 33 reads, from the local memory 29, the Movie Object that constitutes the branch destination, decodes the navigation command written in the Movie Object...

...is read from theBD-ROM, and performs a branch control . The branch control includes receiving a Title number that is a jump destination when the HDMV module 33 has executed a JumpTitle command or when the BD-J module 35 has issued a Title jump API, and notifying the Movie Object or the BD-J Object that composes the Title to the HDMV module 33 or the BD-J module 35. In FIG. 19, the arrows with signs (HamiltonOperator)0, (HamiltonOperator)1, and (HamiltonOperator)2 respectively indicate the...the branch destination label (step S33), extracts IDj from the Index of the Title number j in the Index Table (step S34), and causes the HDMV module 33 or the BD-J module 35 to

execute the Movie Object or the BD-J object of the IDj (step S35).

At step...

...notification of an end of a Title from the application manager 36, and if there has been such notification (YES at step S32), causes the HDMV module 33 or the module manager 34 to execute the TopMenuOBJ that constitutes the top menu Title (step S36).

The following describes an example of...35 is this Java platform, a playback apparatus according to the present invention shares processing as a mobile telephone.

(K) In the layer model, the HDMV mode may be positioned on the BD-J mode. This is because especially the analysis of the dynamic scenario in the HDMV mode and the execution of the control procedure based on the dynamic scenario put light load on the playback apparatus, and there is no problem in executing the HDMV mode on the BD-J mode. Also, in the development process of the playback apparatus or a movie work, the operations can be guaranteed by...

...in Embodiment 5, a playback control can be performed in synchronization with a playback of a PL in the BD-J mode, and therefore the HDMV mode may not necessarily be provided.

(L) A navigation command may be provided for a interactive graphics stream that is to be multiplexed on an...

16/3,K/70 (Item 70 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01912419

PLAYBACK APPARATUS, PROGRAM, AND PLAYBACK METHOD

PLAYBACKVORRICHTUNG, -PROGRAMM UND -METHODE

APPAREIL, LOGICIEL ET METHODE DE PLAY-BACK

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (1855508), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

IKEDA, Wataru/o matsushita Electric Ind. Co. Ltd., 19F Matsushita IMP Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

IWAMOTO, Hiroaki/o matsushita El. Ind. Co. Ltd., 19F Matsushita IMP Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

OKADA, Tomoyuki/o matsushita Electric Ind Co Ltd., 19F Matsushita IMP Bldg., 1-3-7 Shiromi, Chuo-ku, Osaka 540-6319, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1675117 A1 060628 (Basic)

WO 2005036545 050421

APPLICATION (CC, No, Date): EP 2004773784 041012; WO 2004JP15333 041012

PRIORITY (CC, No, Date): JP 2003352913 031010; JP 2003379758 031110

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; HR; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): G11B-020/10; G11B-020/12; G11B-027/00;

G11B-027/10; G06F-019/00

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0020/10 A I F B 19850101 20050425 H EP

G11B-0020/12 A I L B 19850101 20050425 H EP

G11B-0027/00 A I L B 19680901 20050425 H EP

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G06F-0019/00 A I L B 19950101 20050425 H EP

ABSTRACT WORD COUNT: 135

NOTE:

Figure number on first page: 41AB

LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200626 1083

SPEC A (English) 200626 25823

Total word count - document A 26906

Total word count - document B 0

Total word count - documents A + B 26906

INVENTOR:

IKEDA, Wataru/o matsushita Electric Ind. Co. Ltd...

...JP)

OKADA, Tomoyuki/o matsushita Electric Ind Co Ltd...

...SPECIFICATION based execution environment. The second mode is an operation environment of the Java Virtual Machine. Of these two operation environments, the first one is called HDMV mode, and the second one is called BD-J mode. Due to the presence of the two operation environments, the dynamic scenario is written by presuming either of the two operation environments. A dynamic scenario presuming the HDMV mode is called Movie Object, and is defined by the management information. On the other hand, a dynamic scenario presuming the BD-J mode is...information and Clip information.

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On a same layer between a HDMV module 33 and a module manager 34 are:d-1) the HDMV module 33 that decodes and executes movie objects;

and

d-2) a BD-J module 35 that decodes and executes BD-J objects.

The BD...

...the current PL information and Clip information. The functions (i) and (ii) are performed in response to the function calls that are issued by the HDMV module 33, the module manager 34 and the BD-J module 35. That is to say, the playback control engine 32 executes its own functions

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...the arrows with the signs &#x229A;2 and &#x229A;3 indicate the playback control engine 32 referencing the Clip information and the PlayList information.

The HDMV module 33 is a movie mode. If notified by the module manager 34 of a Movie Object that constitutes a branch destination, the HDMV module 33 reads, from the local memory 29, the Movie Object that constitutes the branch destination, decodes the navigation command written in the Movie Object...

...is read from the BD-ROM, and performs a branch control. The branch control includes receiving a Title number that is a jump destination when the HDMV module 33 has executed a JumpTitle command or when the BD-J module 35 has issued a Title jump API, and notifying the Movie Object or the BD-J Object that composes the Title to the HDMV module 33 or the BD-J module 35. In FIG. 19, the arrows with signs (HamiltonOperator)0, (HamiltonOperator)1, and (HamiltonOperator)2

respectively indicate the...

...the branch destination label (step S33), extracts IDj from the Index of the Title number j in the Index Table (step S34), and causes the HDMV module 33 or the BD-J module 35 to execute the Movie Object or the BD-J object of the IDj (step S35).

At step...

...notification of an end of a Title from the application manager 36, and if there has been such notification (YES at step S32), causes the HDMV module 33 or the module manager 34 to execute the TopMenuOBJ that constitutes the top menu Title (step S36).

The following describes an example of...35 is this Java platform, a playback apparatus according to the present invention shares processing as a mobile telephone.

(K) In the layer model, the HDMV mode may be positioned on the BD-J mode. This is because especially the analysis of the dynamic scenario in the HDMV mode and the execution of the control procedure based on the dynamic scenario put light load on the playback apparatus, and there is no problem in executing the HDMV mode on the BD-J mode. Also, in the development process of the playback apparatus or a movie work, the operations can be guaranteed by...

16/3,K/71 (Item 71 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01834392

RECORDING MEDIUM, REPRODUCING APPARATUS, RECORDING METHOD, REPRODUCING PROGRAM, AND REPRODUCING METHOD  
AUFZEICHNUNGSMEDIUM, WIEDERGABEVORRICHTUNG, AUFZEICHNUNGSVERFAHREN, WIEDERGABEPROGRAMM UND WIEDERGABEVERFAHREN  
SUPPORT D'ENREGISTREMENT, APPAREIL DE REPRODUCTION, PROCEDE D'ENREGISTREMENT, PROGRAMME DE REPRODUCTION, ET PROCEDE DE REPRODUCTION  
PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

IKEDA, Wataru, 1-15-18-1202, Kyomachibori, Nishi-ku., Osaka-shi, Osaka 550-0003, (JP)

OKADA, Tomoyuki, 1-8-19-303, Tomio-motomachi., Nara-shi, Nara 631-0078, (JP)

UESAKA, Yasushi, 2-16-16, Tsutsujigaoka-Kita., Sanda-shi, Hyogo 669-1348, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1617434 A1 060118 (Basic)

WO 2004095455 041104

APPLICATION (CC, No, Date): EP 2004727712 040415; WO 2004JP5366 040415

PRIORITY (CC, No, Date): JP 2003118284 030423

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; HR; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): G11B-027/10; H04N-005/85; H04N-005/92; H04N-005/93

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

G11B-0027/10 A I F B 19680901 20041105 H EP

H04N-0005/85 A I L B 19800101 20041105 H EP  
H04N-0005/92 A I L B 19800101 20041105 H EP  
H04N-0005/93 A I L B 19800101 20041105 H EP

ABSTRACT WORD COUNT: 94

NOTE:

Figure number on first page: 17

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200603 1326

SPEC A (English) 200603 10451

Total word count - document A 11777

Total word count - document B 0

Total word count - documents A + B 11777

INVENTOR:

IKEDA, Wataru...

...JP)

OKADA, Tomoyuki...

...SPECIFICATION program language, and the creator who performs authoring can obtain the data structure on a BD-ROM by writing the class structure according to the Blu-ray Prerecording Format.

This concludes the embodiment of the recording medium pertaining to the present invention. The embodiment of the playback device pertaining to the present...

16/3,K/72 (Item 72 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01813243

DATA PROCESSING DEVICE

DATENVERARBEITUNGSEINRICHTUNG

DISPOSITIF DE TRAITEMENT DE DONNEES

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshi, /, (JP)

OKADA, Tomoyuki, /, (JP)

IKEDA, Wataru, /, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1517554 A1 050323 (Basic)

WO 2004082274 040923

APPLICATION (CC, No, Date): EP 2004716365 040302; WO 2004JP2583 040302

PRIORITY (CC, No, Date): JP 200368026 030313

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): H04N-005/93; H04N-005/92; H04N-005/85; H04N-007/01; H04N-007/08

ABSTRACT WORD COUNT: 173

NOTE:

Figure number on first page: 31



LANGUAGE (Publication,Procedural,Application): English; English; Japanese  
FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 200512 1380

SPEC A (English) 200512 17711

Total word count - document A 19091

Total word count - document B 0

Total word count - documents A + B 19091

INVENTOR:

YAHATA, Hiroshi...

...JP)

OKADA, Tomovuki...

...JP)

IKEDA, Wataru...

...SPECIFICATION present invention will be described. In the preferred embodiments of the present invention, HD video is written on a high-density storage medium such as Blu-ray Disc (which will be referred to herein as a "BD"), of which the storage capacity is several times as high as that of a DVD...

16/3,K/73 (Item 73 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01807336

RECORDING MEDIUM, REPRODUCTION DEVICE, RECORDING METHOD, PROGRAM, AND REPRODUCTION METHOD

AUFZEICHNUNGSMEDIUM, WIEDERGABEEINRICHTUNG, AUFZEICHNUNGSVERFAHREN, PROGRAMM UND WIEDERGABEVERFAHREN

SUPPORT D'ENREGISTREMENT, DISPOSITIF DE REPRODUCTION, PROCEDE D'ENREGISTREMENT, ET PROCEDE DE REPRODUCTION

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (1855509), 1006, Ohaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all)

INVENTOR:

YAHATA, Hiroshi, 24-10-303, Shouji-cho Kadoma-shi, Osaka 571-0058, (JP)

OKADA, Tomovuki, 1-8-1-303, Tomio-motomachi Nara-shi, Nara 631-0078, (JP)

IKEDA, Wataru, 1-15-18-1.202, Kyomachibori Nishi-ku, Osaka-shi Osaka 534-0023, (JP)

McCROSSAN, Joseph, Wexford Circle, 1.724, Simi Valley, CA 93065, (US)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhauser Anwaltssozietat (100723), Maximilianstrasse 58, D-80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1619891 A1 060125 (Basic)

WO 2004077826 040910

APPLICATION (CC, No, Date): EP 2004715444 040227; WO 2004JP2340 040227

PRIORITY (CC, No, Date): JP 200352838 030228; US 485207 P 030703; JP 2003280706 030728

DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; RO; SE; SI; SK; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK

INTERNATIONAL PATENT CLASS (V7): H04N-005/92; H04N-005/93; G06F-003/14

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0005/92 A I F B 19800101 20040913 H EP

H04N-0005/93 A I L B 19800101 20040913 H EP

G06F-0003/14 A I L B 19680901 20040913 H EP

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Figure number on first page: 0022

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

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SPEC A (English) 200604 21203

Total word count - document A 22438

Total word count - document B 0

Total word count - documents A + B 22438

INVENTOR:

YAHATA, Hiroshi...

...JP)

OKADA, Tomoyuki...

...JP)

IKEDA, Wataru...

...JP)

McCROSSAN, Joseph...

...SPECIFICATION operation of the DVD interactive control. In view of such criticism, animation display of buttons is attempted on the interactive display of a BD-ROM (**Blu-ray** disk prerecorded format). To be more specific, in the interactive display displayed by a BD-ROM, each button is presented in a form of original...

16/3,K/74 (Item 74 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01391907 \*\*Image available\*\*

PICTURE CODING APPARATUS AND PICTURE DECODING APPARATUS

APPAREIL DE CODAGE D'IMAGES ET APPAREIL DE DECODAGE D'IMAGES

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
Osaka, 5718501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

HEWLETT-PACKARD DEVELOPMENT COMPANY LP, 20555 S.H. 249, Houston, Texas,  
77070, US, US (Residence), US (Nationality), (For all designated states  
except: US)

Patent Applicant/Inventor:

TOMA Tadamasa, -- (Residence), -- (Nationality),

OKADA Tomoyuki, -- (Residence), -- (Nationality),

LIU Sam, -- (Residence), -- (Nationality),

WALKER Philip M, -- (Residence), -- (Nationality),

BOERGER Paul, -- (Residence), -- (Nationality),

Legal Representative:

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Bldg., 3-10, Nishi Nakajima 5-chome, Yodogawa-ku, Osaka-city, Osaka  
532-0011, JP

## Patent and Priority Information (Country, Number, Date):

Patent: WO 200673207 A2-A3 20060713 (WO 0673207)

Application: WO 2006JP300314 20060106 (PCT/WO JP2006300314)

Priority Application: US 2005642147 20050110

## Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR  
KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG  
PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC  
VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL  
PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 23009

## Patent Applicant/Inventor:

... OKADA Tomoyuki

## Fulltext Availability:

Detailed Description

## Detailed Description

... MPEG-2 and MPEG-4 standards. The VC-1 is  
expected to be used for next-generation optical disk peripheral  
to devices,, such as a Blu-ray disc (BD) and a High  
Definition (HD) DVD.

In general, in coding of a moving picture, compression of  
information volume is performed by eliminating redundancy...picture  
decoding apparatus 100 according to the second  
variation can reduce the load of the decoding still pictures used in an  
application such as a Blu-ray Disc (BD),

For a stream, there are two kinds of methods for generating a  
sequence in which pictures are still. By one method, one or...media and  
the like, such as a method using a transport  
stream packet of the MPEG-2 system or a packet which is defined in  
Blu-ray Disc (BD),

Moreover, in the simple profile and the main profile,  
Skipped-picture cannot be identified by the picture type in the  
picture layer.

Therefore...

16/3,K/75 (Item 75 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01379818

SIMULTANEOUS AUDIO AND VISUAL CONTENT DOWNLOAD AND PLAYBACK  
TELECHARGEMENT ET LECTURE SIMULTANES DE CONTENU AUDIO ET VIDEO

## Patent Applicant/Assignee:

HEWLETT-PACKARD DEVELOPMENT COMPANY LP, Hewlett-Packard Company,  
Intellectual Property Administration, 20555 S.H. 249, Houston, Texas

77070, US, US (Residence), US (Nationality), (For all designated states except: US)

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 19F Matsushita IMP Bldg., 1-3-7 Shiromi, Chuo-Ku, Osaka City, os 540-6319, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

BEGED-DOV Gabe, 1000 NE Circle Blvd., Corvallis, Oregon 97330-4239, US, US (Residence), US (Nationality), (Designated only for: US)

MCCROSSAN Joe, Panasonic Hollywood Laboratory, Division of Matsushita Electric Corp. of America, 100 Universal City Plaza, Bldg. 3153, Universal City, California 91608, US, US (Residence), GB (Nationality), (Designated only for: US)

OKADA Tomoyuki, Matsushita Electric Industrial Co., Ltd, 1-15 Matsuo-cho Kadoma, Osaka, Osaka 571-8504, JP, JP (Residence), JP (Nationality), (Designated only for: US)

WALKER Philip M, 3404 E. Harmony Road, Fort Collins, Colorado 80528-9599, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

LIMON Jeff D et al (agent), Hewlett-Packard Company, Intellectual Property Administration, P.O. Box 272400, Mail Stop 35, Fort Collins, Colorado 80527-2400, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200662585 A1 20060615 (WO 0662585)

Application: WO 2005US37524 20051020 (PCT/WO US2005037524)

Priority Application: US 20045173 20041206

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ  
LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH  
PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN  
YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL  
PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 3645

Patent Applicant/Inventor:

... Designated only for: US)

MCCROSSAN Joe...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... simultaneous content

download and playback according to a third of the invention.

5 Brief Description of the Appendix

[0005] The attached Appendix, entitled "White Paper - Blu-ray  
Disc

Read Only Disc Format Part 3 Audio Visual Application Specifications" has  
been included to provide a deeper understanding of at least some of the

...media similar to a conventional DVD. However, in the context of the present invention, disc storage 120 is designed to respond to a 405 nm ("Blu-Ray") laser that provides higher density storage than conventional DVDs. Thus, disc storage 120 may support higher definition video, as opposed to standard definition video provided...

16/3,K/76 (Item 76 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2007 WIPO/Thomson. All rts. reserv.

01355547 \*\*Image available\*\*

PICTURE CODING APPARATUS AND PICTURE DECODING APPARATUS  
APPAREIL DE CODAGE D'IMAGES ET APPAREIL DE DECODAGE D'IMAGES

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
Osaka, 5718501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

HEWLETT-PACKARD DEVELOPMENT COMPANY LP, 20555 S.H. 249, Houston, Texas,  
77070, US, US (Residence), US (Nationality), (For all designated states  
except: US)

Patent Applicant/Inventor:

TOMA Tadamasu, -- (Residence), -- (Nationality), (Designated only for:  
US)

OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)

LIU Sam, -- (Residence), -- (Nationality), (Designated only for: US)

Legal Representative:

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Osaka 5320011, JP

Patent and Priority Information (Country, Number, Date):

Patent: WO 200638716 A1 20060413 (WO 0638716)

Application: WO 2005JP18735 20051005 (PCT/WO JP2005018735)

Priority Application: US 2004616203 20041007

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ  
LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH  
PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN  
YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU LV MC NL  
PL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 13640

Patent Applicant/Inventor:

... Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

## Detailed Description

## Detailed Description

... MPEG-2 and MPEG-4 standards. The VC-1 is  
lo expected to be used for next-generation optical disk peripheral  
devices, such as a Blu-ray disc (BD) and a High Definition  
(HD) DVD.

In general, in coding of a moving picture,, compression of  
information volume is performed by eliminating redundancy...

16/3,K/77 (Item 77 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01311413 \*\*Image available\*\*

SEAMLESS SWITCHING BETWEEN RANDOM ACCESS UNITS MULTIPLEXED IN A MULTI ANGLE  
VIEW MULTIMEDIA STREAM

COMMUTATION CONTINUE ENTRE DES UNITES A ACCES DIRECT MULTIPLEXEES DANS UN  
FLUX MULTIMEDIA DE VUE A ANGLES MULTIPLES

## Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
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designated states except: US)

## Patent Applicant/Inventor:

TOMA Tadamasa, -- (Residence), -- (Nationality), (Designated only for:  
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OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)

KADONO Shinya, -- (Residence), -- (Nationality), (Designated only for:  
US)

## Legal Representative:

NII Hiromori (agent), c/o NII Patent Firm, 3rd Floor, Shin-Osaka Suehiro  
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Osaka 5320011, JP,

## Patent and Priority Information (Country, Number, Date):

Patent: WO 2005120078 A1 20051215 (WO 05120078)

Application: WO 2005JP10453 20050601 (PCT/WO JP05010453)

Priority Application: JP 2004165030 20040602

## Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL  
PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU  
ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL  
PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 14286

## Patent Applicant/Inventor:

... Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

## Detailed Description

... scheme such as MPEG-2 Transport Streams (TSs) or Program Streams (PSs), or other scheme predetermined by application, and then multiplexed. For example, in the Blu-ray Disc (13D) standard, the read out data strOut 2 is multiplexed using a scheme where 4-byte header is added to MPEG-2 TS packets...of frame delays of the clips included in the same coded stream is shown.

In the case of using an application standard,, such as the Blu-Ray Disc (13D) or a High Definition (HD)-DVD, for which it is defined that frame delays should be equal to each other or for which...

...media. Here will be described an example where multiplexed data outputted from the multiplexing apparatuses in the first and second embodiments are recorded into a Blu-ray Disc (13D) that is a next generation optical disc.

First,, a recording format of a BD-ROM will be described, FIG, 22 is a diagram...

16/3,K/78 (Item 78 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01311405 \*\*Image available\*\*

PICTURE CODING APPARATUS AND PICTURE DECODING APPARATUS  
APPAREIL DE CODAGE D'IMAGES ET APPAREIL DE DECODAGE D'IMAGES

Patent Applicant/Assignee:

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Patent Applicant/Inventor:

TOMA Tadamasa, -- (Residence), -- (Nationality), (Designated only for: US)

KADONO Shinya, -- (Residence), -- (Nationality), (Designated only for: US)

OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only for: US)

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NII Hiromori (agent), c/o NII Patent Firm, 3rd Floor, Shin-Osaka Suehiro Center Bldg., 11-26, Nishinakajima 3-chome, Yodogawa-ku, Osaka-shi, Osaka, 5320011, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 2005120060 A1 20051215 (WO 05120060)

Application: WO 2005JP10441 20050601 (PCT/WO JP05010441)

Priority Application: JP 2004165006 20040602

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL

PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU  
ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL  
PT RO SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 17437

Patent Applicant/Inventor:

... Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... data Mux to the storage unit 35, While a multiplexing method is presumed to be a format standardized by a Read Only Format of a Blu-ray Disc (13D) and a Rewritable Format, other multiplexing methods such as a method defined in DVD or HD-DVD and a method adherence to MP4...

...multiplexed data.

(Fourth Embodiment)

A trick-play function is particularly important for an optical disc appliance which plays back a packaged media, First,, in a Blu-ray Disc (13D) that is a next generation optical disc, it is

explained about an example of recording the Multiplexed data Mux of the multiplexing apparatus...

16/3,K/79 (Item 79 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01298813 \*\*Image available\*\*

MOVING PICTURE STREAM GENERATION APPARATUS, MOVING PICTURE CODING APPARATUS, MOVING PICTURE MULTIPLEXING APPARATUS AND MOVING PICTURE DECODING APPARATUS

APPAREIL DE GENERATION DE FLUX D'IMAGES ANIMEES, APPAREIL DE CODAGE D'IMAGES ANIMEES, APPAREIL DE MULTIPLEXAGE D'IMAGES ANIMEES ET APPAREIL DE DECODAGE D'IMAGES ANIMEES

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi, Osaka, 5718501, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

TOMA Tadamasu, -- (Residence), -- (Nationality), (Designated only for: US)

KADONO Shinya, -- (Residence), -- (Nationality), (Designated only for: US)

OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only for: US)

YAHATA Hiroshi, -- (Residence), -- (Nationality), (Designated only for: US)

Legal Representative:



NII Hiromori (agent), c/o NII Patent Firm, 3rd Floor, Shin-Osaka Suehiro Center Bldg., 11-26, Nishinakajima 3-chome, Yodogawa-ku, Osaka-shi, Osaka 5320011, JP,

## Patent and Priority Information (Country, Number, Date):

Patent: WO 2005106875 A1 20051110 (WO 05106875)

Application: WO 2005JP8319 20050425 (PCT/WO JP05008319)

Priority Application: JP 2004134212 20040428; JP 2004165005 20040602; JP 2004251871 20040831

## Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ  
LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT  
RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA  
ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL  
PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 26139

## Patent Applicant/Inventor:

... Designated only for: US)

**OKADA Tomoyuki**...

...Designated only for: US)

**YAHATA Hiroshi**...

## Fulltext Availability:

Detailed Description

## Detailed Description

... ii ) the current TS packet. Here,, it is possible to use the information on Source Packet to be used for a recording format of a **Blu-ray** Disc (13D) instead of a TS packet, Source Packet is obtained

by adding, to a TS packet, a 4-byte header including time information of...directly indicate the information concerning the structure of a stream, but indicate whether a stream satisfies the requirements on the stream structures prescribed by the **Blu-ray** Disc (BD-ROM) standard or the High Definition (HD) DVD

standard that is the standard for storing high-definition pictures in a DVD. Also, in...especially important in an optical disc apparatus that plays back a package media, Heref an example of recording trick-play information described above into a **Blu-ray** Disc

(BD) that is a next generation optical disc will be described.

First,, a recording format of a BD-ROM will be described.

FIG, 31...

16/3,K/80 (Item 80 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01240103 \*\*Image available\*\*

RECORDING MEDIUM, PLAYBACK APPARATUS AND METHOD, RECORDING METHOD, AND  
COMPUTER-READABLE PROGRAMSUPPORT D'ENREGISTREMENT, PROCEDE ET DISPOSITIF DE LECTURE, PROCEDE DE  
LECTURE ET PROGRAMME LISIBLE PAR ORDINATEUR

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
Osaka 5718501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

Patent Applicant/Inventor:

McCROSSAN Joseph, -- (Residence), -- (Nationality), (Designated  
only for: US)OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)KOZUKA Masayuki, -- (Residence), -- (Nationality), (Designated only for:  
US)

Legal Representative:

NAKAJIMA Shiro (et al) (agent), 6F, Yodogawa 5-Bankan 2-1, Toyosaki  
3-chome, Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200548592 A1 20050526 (WO 0548592)

Application: WO 2004JP17220 20041112 (PCT/WO JP04017220)

Priority Application: US 2003519113 20031112

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LU MC NL PL PT  
RO SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 27072

Patent Applicant/Inventor:

McCROSSAN Joseph...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... 1394 connector, the TS packets from being recorded  
to other devices.(F) The above embodiments relate to the case where an AV  
Clip of the Blu-ray Disc Read-Only Format is used as a  
digital  
stream, but the present invention may also be embodied with a  
VOB (Video Object) of the...

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01240099 \*\*Image available\*\*

RECORDING MEDIUM, PLAYBACK APPARATUS AND METHOD, RECORDING METHOD, AND  
COMPUTER-READABLE PROGRAM

SUPPORT D'ENREGISTREMENT, APPAREIL ET PROCEDE DE LECTURE, PROCEDE  
D'ENREGISTREMENT ET PROGRAMME POUVANT ETRE LU PAR UN ORDINATEUR

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
Osaka 5718501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

Patent Applicant/Inventor:

McCROSSAN Joseph, -- (Residence), -- (Nationality), (Designated  
only for: US)

OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)

KOZUKA Masayuki, -- (Residence), -- (Nationality), (Designated only for:  
US)

Legal Representative:

NAKAJIMA Shiro (et al) (agent), 6F, Yodogawa 5-Bankan 2-1, Toyosaki  
3-chome, Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200548261 A1 20050526 (WO 0548261)

Application: WO 2004JP17215 20041112 (PCT/WO JP04017215)

Priority Application: US 2003519317 20031112

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LU MC NL PL PT  
RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

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Fulltext Word Count: 27655

Patent Applicant/Inventor:

McCROSSAN Joseph...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... 1394 connector, the TS packets from being recorded  
to other devices.

(F) The above embodiments relate to the case where an AV  
Clip of the Blu-ray, Disc Read-Only Format is used as a  
-digital  
stream, but the present invention may also be embodied with a  
VOB -(Video Object) of the...

16/3,K/82 (Item 82 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01237777 \*\*Image available\*\*

RECORDING MEDIUM, REPRODUCTION DEVICE, PROGRAM, REPRODUCTION METHOD, AND  
SYSTEM INTEGRATED CIRCUIT  
SUPPORT D'ENREGISTREMENT, DISPOSITIF DE REPRODUCTION, PROGRAMME, PROCEDE DE  
REPRODUCTION, ET CIRCUIT INTEGRE DE SYSTEME

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi,  
Osaka, 5718501, JP, JP (Residence), JP (Nationality), (For all  
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Patent Applicant/Inventor:

IWAMOTO Hiroaki, -- (Residence), -- (Nationality), (Designated only for:  
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IKEDA Wataru, -- (Residence), -- (Nationality), (Designated only  
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OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)

OKUBO Masafumi, -- (Residence), -- (Nationality), (Designated only for:  
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Legal Representative:

NAKAJIMA Shiro (et al) (agent), 6F, Yodogawa 5-Bankan, 2-1, Toyosaki  
3-chome, Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200545840 A1 20050519 (WO 0545840)

Application: WO 2004JP16598 20041109 (PCT/WO JP04016598)

Priority Application: JP 2003380464 20031110; JP 2004261376 20040908

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LU MC NL PL PT  
RO SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: Japanese

Filing Language: Japanese

Patent Applicant/Inventor:

... Designated only for: US)

IKEDA Wataru...

...Designated only for: US)

OKADA Tomoyuki...

French Abstract

L'invention porte sur un Blu-ray a memoire morte (BD-ROM)  
contenant une liste de lecture consistant en sequences AV et en  
informations de liste de lecture ; une application ; et un...

01198480 \*\*Image available\*\*

RECORDING MEDIUM, RECORDING METHOD, REPRODUCTION APPARATUS AND METHOD, AND  
COMPUTER-READABLE PROGRAM  
SUPPORT D'ENREGISTREMENT, PROCEDE D'ENREGISTREMENT, APPAREIL ET PROCEDE DE  
REPRODUCTION ET PROGRAMME LISIBLE PAR ORDINATEUR

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oazakadoma, Kadoma-shi,  
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designated states except: US)

Patent Applicant/Inventor:

MCCROSSAN Joseph, -- (Residence), -- (Nationality), (Designated  
only for: US)

OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
for: US)

Legal Representative:

NAKAJIMA Shiro (agent), 6F, Yodogawa 5-Bankan, 2-1, Toyosaki 3-chome,  
Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200506747 A1 20050120 (WO 0506747)

Application: WO 2004JP10155 20040709 (PCT/WO JP04010155)

Priority Application: US 2003486844 20030711

Designated States:

(All protection types applied unless otherwise stated - for applications

2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO  
SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 22105

Patent Applicant/Inventor:

MCCROSSAN Joseph...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... more

DSs in parallel. To enable such parallel processing in  
a reproduction apparatus, active periods of PCSs in DSs  
need to be overlapped. Meanwhile, the **Blu-ray** Disc  
Read-only Format stipulates that decoding be performed  
with a reproduction apparatus of a minimum necessary  
construction.

A decoder model of the **Blu-ray** Disc Read-only Format  
is predicated on pipeline processing (pipelined decoding  
model). The pipelined decoding model is capable of reading  
a graphics object of...explained above are instances of class structures  
written in a programming language. The author writes the  
class structures according to the syntax defined in the

**Blu-ray** Disc Read-only Format, to create these data structures on the BD-ROM 100.

This completes the explanation on the recording medium according to the...

...transfer to the object Buffer 15 is performed at a transfer rate of 128Mbps in the player model of the **Blu-ray** Disc Read-Only Format. An end of transfer of all graphics Objects belonging to a DS to the Object Buffer 15 is shown by a...4 connector, the TS packets from being recorded to other devices.

(F) The above embodiments describe the case where  
84

an AV Clip of the **Blu-ray** Disc Read-Only Format is used as a digital stream, but the present invention can also be realized with a VOB (Video object) of the...

16/3,K/84 (Item 84 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01198479 \*\*Image available\*\*

RECORDING MEDIUM, RECORDING METHOD, REPRODUCTION APPARATUS AND METHOD, AND  
COMPUTER-READABLE PROGRAM  
SUPPORT D'ENREGISTREMENT, PROCEDE D'ENREGISTREMENT, APPAREIL ET PROCEDE DE  
REPRODUCTION, ET PROGRAMME LISIBLE PAR ORDINATEUR

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oazakadoma, Kadoma-shi,  
Osaka 5718501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

Patent Applicant/Inventor:

**MCCROSSAN Joseph**, -- (Residence), -- (Nationality), (Designated  
only for: US)

**OKADA Tomoyuki**, -- (Residence), -- (Nationality), (Designated only  
for: US)

Legal Representative:

NAKAJIMA Shiro (agent), 6F, Yodogawa 5-Bankan, 2-1, Toyosaki 3-chome,  
Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200506746 A1 20050120 (WO 0506746)

Application: WO 2004JP10153 20040709 (PCT/WO JP04010153)

Priority Application: US 2003486844 20030711

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO  
SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Patent Applicant/Inventor:  
MCCROSSAN Joseph...

...Designated only for: US)  
OKADA Tomoyuki...

Fulltext Availability:  
Detailed Description

#### Detailed Description

... more

DSs in parallel. To enable such parallel processing in a reproduction apparatus, active periods of PCSs in DSs need to be overlapped. Meanwhile, the Blu-ray Disc Read-only Format stipulates that decoding be performed with a reproduction apparatus of a minimum necessary construction.

A decoder model of the Blu-ray Disc Read-Only Format is predicated on pipeline processing (pipelined decoding model). The pipelined decoding model is capable of reading a graphics object of one DS from the Object...above are instances of class structures

written in a programming language. The author writes the class structures according to the syntax defined in the Blu-ray Disc Read-Only Format, to create these data structures on the BD-ROM 100.

This completes the explanation on the recording

56

medium according to...

...transfer to the object Buffer 15 is performed at a transfer rate of 128Mbps in the player model of the Blu-ray Disc Read-only Format. An end of transfer of all graphics objects belonging to a DS to the object Buffer 15 is shown by a...4 connector, the TS packets from being recorded to other devices.

(F) The above embodiments describe the case where an AV Clip of the Blu-ray Disc Read-only Format is used as a digital stream, but the present invention can also be realized with a VOB (Video Object) of the...

16/3,K/85 (Item 85 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01196269 \*\*Image available\*\*

RECORDING MEDIUM, REPRODUCTION APPARATUS, RECORDING METHOD, INTEGRATED CIRCUIT, PROGRAM, AND REPRODUCTION METHOD  
SUPPORT D'ENREGISTREMENT, APPAREIL DE REPRODUCTION, PROCEDE D'ENREGISTREMENT, CIRCUIT INTEGRE, PROGRAMME ET PROCEDE DE REPRODUCTION

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006 Oazakadoma, Kadoma-shi, Osaka  
5718501, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

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OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only for: US)

MOCHINAGA Kazuhiro, -- (Residence), -- (Nationality), (Designated only for: US)

Legal Representative:

NAKAJIMA Shiro (agent), 6F, Yodogawa 5-Bankan, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200504478 A1 20050113 (WO 0504478)

Application: WO 2004JP9873 20040705 (PCT/WO JP04009873)

Priority Application: US 2003485207 20030703

Designated States:

(All protection types applied unless otherwise stated - for applications 2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO  
SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 37595

Patent Applicant/Inventor:

McCrossan Joseph...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... which subtitles are displayed by writing to the Graphics Plane four times, and an update is performed for displaying each of two subtitles "what is blu-ray." and "blu-ray is everywhere." FIG.24 illustrates chronological transition of the update in the example. Until a point t1, "what" is displayed, and "what is" is displayed after the t1, till a t2, and then "what is blu-ray." is displayed at a t3. After a whole sentence of a first subtitle has appeared, a second subtitle "blu-ray is everywhere." is displayed at a t4.

FIG. 25A illustrates four Display Sets that are described so as to perform the above explained update...

...includes

a PCS1.2 for controlling an update at the t1, a PDS1 for coloring, an ODS1 corresponding to the subtitle "what is blu-ray.", and an END as an ending code of the DS1.

A DS2 includes a PCS1.2 for controlling an update at



the t2, and an...

...END. A DS 4 includes a PCS2 for controlling an update at the t2, a PDS2 for color conversion, an ODS2 corresponding to the subtitle "blu-ray is everywhere.

and an END.

Referring to a timing chart in FIG. 25B, settings of DTS and PTS for each functional segment in the four...

...at a display point t1 for displaying "what /ff  
a display point t2 for displaying "what is", a display point  
t3 for displaying "what is blu-ray.", and a display point  
t4 for displaying "blue-ray is everywhere.". Each PTS are  
set as above, because it is necessary that-the control such...

...described  
in a programming language. Producers that perform authoring  
may obtain the data structures, on the BD-ROM by describing  
the class structure according to the syntax provided in the  
Blu-ray Disc Prerecording Format.

Next, a practical example of a reproduction apparatus  
according to the present invention is explained below. FIG. 26  
illustrates an internal structure of the reproduction  
apparatus according to the...

16/3,K/86 (Item 86 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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01193812 \*\*Image available\*\*

DVD TO BD-ROM DATA STORAGE FORMAT CONVERSION METHOD AND SYSTEM  
APPAREIL ET PROGRAMME LISIBLE PAR ORDINATEUR POUR GENERER UNE IMAGE DE  
VOLUME

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oazakadoma, Kadoma-shi,  
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Patent Applicant/Inventor:

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OKADA Tomoyuki, -- (Residence), -- (Nationality), (Designated only  
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KOZUKA Masayuki, -- (Residence), -- (Nationality), (Designated only for:  
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Legal Representative:

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Kita-ku, Osaka-shi, Osaka 5310072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200502232 A2-A3 20050106 (WO 0502232)

Application: WO 2004JP9574 20040630 (PCT/WO JP04009574)

Priority Application: US 2003483229 20030630

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO  
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO  
SE SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 16874

Patent Applicant/Inventor:

... Designated only for: US)

**OKADA Tomoyuki**...

Fulltext Availability:

Detailed Description

Detailed Description

... conventional authoring used to target read-only DVD  
(generally called DVD-Video) . However, recent attention is  
directed to how to perform authoring to read-only **Blu-ray**  
Disc  
(hereinafter "BD-ROM") that is expected to make a market debut  
in the near future. The prime merit of distributing movie  
contents through the...

16/3,K/87 (Item 87 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01175180 \*\*Image available\*\*

RECORDING MEDIUM, REPRODUCTION APPARATUS, RECORDING METHOD, REPRODUCING  
METHOD, PROGRAM, AND INTEGRATED CIRCUIT FOR RECORDING A VIDEO STREAM  
AND GRAPHICS WITH WINDOW INFORMATION OVER GRAPHICS DISPLAY  
SUPPORT D'ENREGISTREMENT, APPAREIL DE REPRODUCTION, PROCEDE  
D'ENREGISTREMENT, PROGRAMME ET CIRCUIT INTEGRE

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oazakadoma, Kadoma-shi,  
Osaka 571-8501, JP, JP (Residence), JP (Nationality), (For all  
designated states except: US)

Patent Applicant/Inventor:

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**OKADA Tomoyuki**, -- (Residence), -- (Nationality), (Designated only  
for: US)

OGAWA Tomoki, -- (Residence), -- (Nationality), (Designated only for: US)

Legal Representative:

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Kita-ku, Osaka-shi, Osaka 531-0072, JP,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200498193 A2-A3 20041111 (WO 0498193)

Application: WO 2004JP6074 20040427 (PCT/WO JP04006074)

Priority Application: US 2003465972 20030428

Designated States:

(All protection types applied unless otherwise stated - for applications  
2004+)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO

RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW  
 (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO  
 SE SI SK TR  
 (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
 (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW  
 (EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 26987

Patent Applicant/Inventor:

MCCROSSAN Joseph...

...Designated only for: US)

OKADA Tomoyuki...

Fulltext Availability:

Detailed Description

Detailed Description

... t

'mes, and an update @ s perf ormed f- - a y in g  
 e a c-1 o two subtitles "what -is blul-ray." and "blu-ray 71  
 s  
 everywhefe." FT@.24 il-us-rates shifts in @@Te of the u-oda"e i  
 - L L  
 the example. -Jn-.-'l a point...

...DS 4 includes a PCS2 for ccentrellinu an  
 updateat the -.2, a PDS2 -for cc@ or conversion, an ODS1 corresponding  
 39  
 to the subtit@e "blu-ray -is everywi-iere.", and an END.

## NPL Files

File 2:INSPEC 1898-2007/Aug W1 (c) 2007 Institution of Electrical Engineers  
 File 6:NTIS 1964-2007/Aug W3 (c) 2007 NTIS, Intl Cpyrght All Rights Res  
 File 8:Ei Compendex(R) 1884-2007/Aug W1 (c) 2007 Elsevier Eng. Info. Inc.  
 File 34:SciSearch(R) Cited Ref Sci 1990-2007/Aug W3 (c) 2007 The Thomson Corp  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec (c) 2006 The Thomson Corp  
 File 35:Dissertation Abs Online 1861-2007/Jul (c) 2007 ProQuest Info&Learning  
 File 65:Inside Conferences 1993-2007/Aug 17 (c) 2007 BLDSC all rts. reserv.  
 File 99:Wilson Appl. Sci & Tech Abs 1983-2007/Jul (c) 2007 The HW Wilson Co.

Set	Items	Description
S1	214	AU=(YAHATA, H? OR YAHATA H?)
S2	15	AU=(MCCROSSAN, J? OR MCCROSSAN J?)
S4	8547	AU=(OKADA, T? OR OKADA T?)
S5	52	AU=(IKEDA, W? OR IKEDA W?)
S6	8828	S1 OR S2 OR S4 OR S5
S7	26030	HIGH () DEFINITION OR BLU()RAY OR BD()ROM OR BDROM OR VIDEO () STREAM? OR HDMV
S9	4	S6 AND S7
S10	4	RD (unique items)

10/5/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2007 Institution of Electrical Engineers. All rts. reserv.

09249269 INSPEC Abstract Number: B2005-02-4120-086

Title: Logical specifications and content protection system of Blu-ray disc rewritable format (2)

Author(s): Yahata, H.; Gotoh, Y.; Ishihara, H.

Journal: Matsushita Technical Journal vol.50, no.5 p.34-8

Publisher: Matsushita Electric Industrial Co,

Publication Date: Oct. 2004 Country of Publication: Japan

CODEN: NTROAV ISSN: 1343-9529

SICI: 1343-9529(200410)50:5L:34:LSCP;1-I

Material Identity Number: G497-2004-006

Language: Japanese Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: For part 1 see ibid., vol. 50 no. 5 p.30-33, (2004). An explanation of the outline of specifications for the Blu-ray rewritable disc format, in particular the logic specifications dated June 2002 (file system specifications part 2 and audio visual basic specifications part 3) as well as the content protection system specifications dated February 2003 (content protection system for Blu-ray disc rewritable specifications). (1 Refs)

Subfile: B

Descriptors: audio-visual systems; optical disc storage; telecommunication standards

Identifiers: content protection system; blu-ray disc rewritable format; logical specification

Class Codes: B4120 (Optical storage and retrieval); B6430H (Video recording)

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10/5/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2007 Institution of Electrical Engineers. All rts. reserv.

06755005 INSPEC Abstract Number: C9801-7330-057

Title: Development of a medical image filing system based on superhigh-definition image and its functional evaluation

Author(s): Takeda, H.; Matsumura, Y.; Okada, T.; Kuwata, S.; Wada, M.; Hashimoto, T.

Author Affiliation: Dept. of Med. Inf. Sci., Osaka Univ., Japan

Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.3013 p.149-56

Publisher: SPIE-Int. Soc. Opt. Eng.

Publication Date: 1997 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

SICI: 0277-786X(1997)3013L:149:DMIF;1-5

Material Identity Number: C574-97177

U.S. Copyright Clearance Center Code: 0277-786X/97/\$10.00

Conference Title: Projection Displays III

Conference Sponsor: SPIE; IS&T

Conference Date: 10-12 Feb. 1997 Conference Location: San Jose, CA, USA

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Practical (P)

Abstract: Although many images are handled in the medical filed, image monitoring devices and filing methods vary due to differences in resolution and pixel depth. If a system enabling such images to be filed synthetically without losing its quality were to exist, and if retrieval of such images were made easily, such a system could be applied in various ways. In order to determine whether a super high definition (SHD) image system running at a series of 2048 resolution\*2048 line\*60 frame/sec was capable of such purposes, we established a filing system for medical images on this system. All images of various types produced form one case of cardiovascular disease were digitized and registered into this filing system. All images were animated and totaled a number of 243. We prepared a graphic user interface for image retrieval based on the medical events and modalities. Twenty one cardiac specialists evaluated quality of the SHD images to be somewhat poor compared to the original pictures but sufficient for making diagnoses, and effective as a tool for teaching and case study group purposes because of its operability of the retrieval system. The system capability of simultaneously displaying several animated images was especially deemed effective in grasping comprehension of diagnosis. (2 Refs)

Subfile: C

Descriptors: computer animation; graphical user interfaces; information retrieval; medical image processing; patient diagnosis; visual databases

Identifiers: medical image filing system; superhigh-definition image; graphic user interface; image retrieval; animated images; diagnosis

Class Codes: C7330 (Biology and medical computing); C6160S (Spatial and pictorial databases); C7250R (Information retrieval techniques); C6180G (Graphical user interfaces); C6130B (Graphics techniques); C5260B (Computer vision and image processing techniques)

Copyright 1997, IEE

10/5/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2007 Institution of Electrical Engineers. All rts. reserv.

05085382 INSPEC Abstract Number: B9203-6430C-013

Title: Hi-Vision production equipments

Author(s): **Okada, T.**; Morita, S.; Iida, H.

Author Affiliation: Div. of Radio Telecommun., Matsushita Commun. Ind. Ltd., Osaka, Japan

Journal: National Technical Report vol.37, no.5 p.60-9

Publication Date: Oct. 1991 Country of Publication: Japan

CODEN: NTROAV ISSN: 0028-0291

Language: Japanese Document Type: Journal Paper (JP)

Treatment: Applications (A); Practical (P)

Abstract: Switchers which are the core of the production system and an electronic character and graphic generator have been developed as applications of the current NTSC system. The analog switcher has the same functions and operability. The digital switcher satisfies the BTA S-001 Standard, featuring stability and functions as high as those of the digital switcher of the NTSC system. A Hi-Vision movie van is introduced as an example of the system application of these switchers. (2 Refs)

Subfile: B

Descriptors: **high definition** television; road vehicles; television equipment

Identifiers: HDTV; Hi-Vision production; electronic character and graphic generator; NTSC; operability; digital switcher; van

Class Codes: B6430C (High definition television)

10/5/4 (Item 1 from file: 65)

DIALOG(R)File 65:Inside Conferences

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03162129 INSIDE CONFERENCE ITEM ID: CN033497260

Functional Evaluation of Telemedicine with Super **High**

**Definition** Images and B-ISDN

Takeda, H.; Matsumura, Y.; **Okada, T.**; Kuwata, S.; Komori, M.;

Takahashi, T.; Minatom, K.; Hashimoto, T.; Wada, M.; Fujio, Y.

CONFERENCE: Medical informatics; Medinfo '98-World congress; 9th

STUDIES IN HEALTH TECHNOLOGY AND INFORMATICS, 1998; VOL 52; NO 1 & 2

P: 311-314

Amsterdam, Oxford, IOS, 1998

ISSN: 0926-9630 ISBN: 9051994079; 4274902315

LANGUAGE: English DOCUMENT TYPE: Conference Papers

CONFERENCE EDITOR(S): Cesnik, B.; McCray, A. T.; Scherrer, J. R.

CONFERENCE SPONSOR: International Federation for Information Processing

CONFERENCE LOCATION: Seoul

CONFERENCE DATE: Aug 1998 (199808)

BRITISH LIBRARY ITEM LOCATION: 8490.628200

DESCRIPTORS: medinfo; medical informatics; IFIP

## Table of Contents

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#### Patent Fulltext Files

File 348:EUROPEAN PATENTS 1978-2007/ 200722

File 349:PCT FULLTEXT 1979-2007/UB=20070531UT=20070525

Set	Items	Description
S1	7349	BLU () RAY OR BLURAY OR (BD() (DISK? ? OR DISC? ? )) OR BD()ROM OR BDMV OR BD()J OR HDI
S2	9388	(HIGH()DEFINITION OR HD OR (HIGH()CAPACITY) OR HDMV)(15N) (RECORDING OR VIDEO OR GRAPHICS OR ANIMATION OR AUDIO OR DVD OR DISC? ? OR DISK?)
S3	15952	S1 OR S2
Limitall/s3		
S4	1906	(NORMAL OR ACTIVE OR SELECT?? OR FIRST OR SECOND OR TRIGGER OR TRANSITION) (4W)(STATE OR FIELD? ?)
S5	8595	BUTTON? OR TRIGGER? OR EVENT? OR WIDGET? OR DIALOG() BOX?OR GRAPHIC?() REPRESENT???? OR (USER(2N)(INPUT???? OR INTERFACE?)) OR MENU() BAR? ? OR SLIDER
S6	1704	(VIDEO? ? OR GRAPHIC?)(2W)STREAM?
S7	8967	S5 OR S6
S9	179	S4 (10N) S7
S10	57	S9 AND PY=1963:2002
S11	57	IDPAT (sorted in duplicate/non-duplicate order)
S12	56	IDPAT (primary/non-duplicate records only)

12/3,K/6 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01074611

Menu-driven television program access system and method

PATENT ASSIGNEE:

Sedna Patent Services, LLC, (4912432), 1500 Market Street, 27th Floor  
West Tower,, Philadelphia, Pennsylvania 19102, (US), (Proprietor

designated states: all)

## INVENTOR:

Hendricks, John S., 8723 Persimmon Tree Road, Potomac, MD 20854, (US)

Bonner, Alfred E., 8300 Bradley Boulevard, Bethesda, MD 20817, (US)

## LEGAL REPRESENTATIVE:

Strehl Schubel-Hopf & Partner (100941), Maximilianstrasse 54, 80538

Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 946060 A1 990929 (Basic)

EP 946060 B1 070117

APPLICATION (CC, No, Date): EP 99110233 931202;

PRIORITY (CC, No, Date): US 991074 921209

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 862328 (EP 98103750)

EP 673580 (EP 94903361)

RELATED DIVISIONAL NUMBER(S) - PN (AN):

EP 1432248 (EP 2004001389)

INTERNATIONAL PATENT CLASS (V7): H04N-007/173

INTERNATIONAL CLASSIFICATION (V8 + ATTRIBUTES):

IPC + Level Value Position Status Version Action Source Office:

H04N-0007/173 A I F B 20060101 19990727 H EP

ABSTRACT WORD COUNT: 134

## NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199939	2790
CLAIMS B	(English)	200703	1323
CLAIMS B	(German)	200703	1192
CLAIMS B	(French)	200703	1628
SPEC A	(English)	199939	21289
SPEC B	(English)	200703	21219
Total word count - document A			24083
Total word count - document B			25362
Total word count - documents A + B			49445

...SPECIFICATION in the table, the three columns of the Events Table identify the field number, the field itself and the type of information downloaded in the Event Data file. The first column contains the field numbers 1 through 11. The middle column contains the corresponding field parameters, including the event type, event ID, global channel ID, price, start time, end...

...example Event Data data file. In particular. Table C shows two data streams corresponding to two event types. The first data stream identifies a YCTV event in the first field. The second field designates the event ID, which is 1234 in this example. The third field includes the global channel ID number two. The fourth field indicates the cost of 50...

...SPECIFICATION in the table, the three columns of the Events Table identify the field number, the field itself and the type of information downloaded in the Event Data file. The first column contains the field numbers 1 through 11. The middle column contains the corresponding field parameters, including the event type, event ID, global channel ID. price, start time, end...



...example Event Data data file. In particular, Table C shows two data streams corresponding to two event types. The first data stream identifies a YCTV event in the first field. The second field designates the event ID, which is 1234 in this example. The third field includes the global channel ID number two. The fourth field indicates the cost of 50...

12/3,K/19 (Item 19 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2007 European Patent Office. All rts. reserv.

00965333

OPTICAL DISC FOR HIGH RESOLUTION AND THREE-DIMENSIONAL IMAGE RECORDING,  
OPTICAL DISC REPRODUCING DEVICE, AND OPTICAL DISC RECORDING DEVICE  
VORRICHTUNG ZUR AUFNAHME UND WIEDERGABE VON HOCHAUFLOSENDEN UND  
DREIDIMENSIONALEN BILDERN MIT OPTISCHER SPEICHERPLATTE  
DISQUE OPTIQUE POUR ENREGISTREMENT OPTIQUE D'IMAGES TRIDIMENSIONNELLES ET  
DE HAUTE RESOLUTION, DISPOSITIF DE REPRODUCTION A DISQUE OPTIQUE, ET  
DISPOSITIF D'ENREGISTREMENT A DISQUE OPTIQUE

PATENT ASSIGNEE:

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD., (216883), 1006, Oaza-Kadoma,  
Kadoma-shi, Osaka 571-8501, (JP), (Proprietor designated states: all)

INVENTOR:

OSHIMA, Mitsuki, 115-3, Katsuraminamitatsumi-cho, Nishikyo-ku,  
Kyoto-shi, Kyoto 615, (JP)  
KITAURA, Hiromu, 14-7, Onodai 1-chome, Osakasayama-shi, Osaka 589, (JP)  
FUKUDA, Hideki, 9-406, Myoukenzaka 3-chome, Katano-shi, Osaka 576, (JP)  
ISHIHARA, Hideshi, 3-408, Myoukenzaka 6-chome, Katano-shi, Osaka 576, (JP)  
KAWARA, Toshiyuki, 1-18-16, Tsudaekimae, Hirakata-shi, Osaka 573-01, (JP)

LEGAL REPRESENTATIVE:

Kugele, Bernhard et al (51541), Novagraaf SA 25, Avenue du Pailly, 1220  
Les Avanchets - Geneva, (CH)

PATENT (CC, No, Kind, Date): EP 944269 A1 990922 (Basic)

EP 944269 B1 021113

WO 98025413 980611

APPLICATION (CC, No, Date): EP 97946090 971203; WO 97JP4429 971203

PRIORITY (CC, No, Date): JP 96323770 961204; JP 96347284 961226; WO 97JP615  
970228; JP 97234320 970829; JP 97288099 971021

DESIGNATED STATES: DE; FR; GB

RELATED DIVISIONAL NUMBER(S) - PN (AN):

EP 1094674 (EP 2001101177)

INTERNATIONAL PATENT CLASS (V7): H04N-013/00; H04N-005/92; G11B-020/10;  
H04N-009/804

ABSTRACT WORD COUNT: 149

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199938	5302
CLAIMS B	(English)	200246	5053
CLAIMS B	(German)	200246	4843
CLAIMS B	(French)	200246	5820
SPEC A	(English)	199938	36910
SPEC B	(English)	200246	37242
Total word count - document A			42218
Total word count - document B			52958
Total word count - documents A + B			95176

...CLAIMS the output section includes a mixture synthesis section for synchronizing the time information of the first video stream and the time information of the second video stream, mixes the first and second video streams on a field -by-field basis or on a frame-by-frame basis, and outputs the first and second video streams alternately.

44. An optical disk reproduction apparatus...

...CLAIMS the output section includes a mixture synthesis section for synchronizing the time information of the first video stream and the time information of the second video stream, mixes the first and second video streams on a field -by-field basis or on a frame-by-frame basis, and outputs the first and second video streams alternately.

44. An optical disk reproduction apparatus...

12/3,K/20 (Item 20 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2007 European Patent Office. All rts. reserv.

00950513

An operations center to be used in television program delivery

Operationszentrale für Fernsehversorgungssystem

Centre d'exploitation pour un système de diffusion de télévision

PATENT ASSIGNEE:

DISCOVERY COMMUNICATIONS, INC., (1818010), 7700 Wisconsin Avenue,,

Bethesda, MD 20814-3522, (US), (Proprietor designated states: all)

INVENTOR:

Hendricks, John S., 8723 Persimmon Tree Road, Potomac, MD 20854, (US)

Bonner, Alfred E., 8300 Bradley Boulevard, Bethesda, MD 20817, (US)

LEGAL REPRESENTATIVE:

Strehl Schubel-Hopf & Partner (100941), Maximilianstrasse 54, 80538

München, (DE)

PATENT (CC, No, Kind, Date): EP 862328 A1 980902 (Basic)

EP 862328 B1 030416

APPLICATION (CC, No, Date): EP 98103750 931202;

PRIORITY (CC, No, Date): US 991074 921209

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 673580 (EP 94903361)

RELATED DIVISIONAL NUMBER(S) - PN (AN):

EP 946060 (EP 99110233)

INTERNATIONAL PATENT CLASS (V7): H04N-007/173; H04N-007/16

ABSTRACT WORD COUNT: 80

NOTE:

Figure number on first page: 11

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199836	2123
CLAIMS B	(English)	200316	2198
CLAIMS B	(German)	200316	1942
CLAIMS B	(French)	200316	2601
SPEC A	(English)	199836	21233
SPEC B	(English)	200316	20857
Total word count - document A			23360

Total word count - document B 27598  
Total word count - documents A + B 50958

...SPECIFICATION in the table, the three columns of the Events Table identify the field number, the field itself and the type of information downloaded in the Event Data file. The first column contains the field numbers 1 through 11. The middle column contains the corresponding field parameters, including the event type, event ID, global channel ID, price, start time, end...

...example Event Data data file. In particular, Table C shows two data streams corresponding to two event types. The first data stream identifies a YCTV event in the first field. The second field designates the event ID, which is 1234 in this example. The third field includes the global channel ID number two. The fourth field indicates the cost of 50...

...SPECIFICATION in the table, the three columns of the Events Table identify the field number, the field itself and the type of information downloaded in the Event Data file. The first column contains the field numbers 1 through 11. The middle column contains the corresponding field parameters, including the event type, event ID, global channel ID, price, start time, end...

...example Event Data data file. In particular, Table C shows two data streams corresponding to two event types. The first data stream identifies a YCTV event in the first field. The second field designates the event ID, which is 1234 in this example. The third field includes the global channel ID number two. The fourth field indicates the cost of 50

12/3,K/24 (Item 24 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2007 European Patent Office. All rts. reserv.

00711605

Reconfigurable data processing stage

PATENT ASSIGNEE:

DISCOVISION ASSOCIATES, (260273), 2355 Main Street Suite 200, Irvine, CA 92714, (US), (Proprietor designated states: all)

INVENTOR:

Wise, Adrian Philip, 10 Westbourne Cottages, Frenchay, Bristol, BS16 1NA, (GB)

Sotheran, Martin William, The Ridings, Wick Lane, Stinchcombe, Dursley, Gloucestershire, GL11 6BD, (GB)

Robbins, William Philip, 19 Springhill, Cam, Gloucestershire, GL11 5PE, (GB)

LEGAL REPRESENTATIVE:

Vuillermoz, Bruno et al (72791), Cabinet Laurent & Charras B.P. 32 20, rue Louis Chirpaz, 69131 Ecully Cedex, (FR)

PATENT (CC, No, Kind, Date): EP 674446 A2 950927 (Basic)

EP 674446 A3 960814

EP 674446 B1 010801

APPLICATION (CC, No, Date): EP 95301300 950228;

PRIORITY (CC, No, Date): GB 9405914 940324

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IE; IT; LI; NL

INTERNATIONAL PATENT CLASS (V7): H04N-007/24; G06F-013/00; G06F-009/38

ABSTRACT WORD COUNT: 144

NOTE:

Figure number on first page: 10

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) EPAB95 2475

CLAIMS B (English) 200131 1079

CLAIMS B (German) 200131 1072

CLAIMS B (French) 200131 1186

SPEC A (English) EPAB95 125236

SPEC B (English) 200131 121335

Total word count - document A 127738

Total word count - document B 124672

Total word count - documents A + B 252410

...SPECIFICATION rate in excess of 40,000 bits per second.

United States Patent No. 5,185,819 discloses a video compression system having odd and even fields of video signal that are independently compressed in sequences of intraframe and interframe compression modes. The odd and even fields of independently compressed data are...address field can be as long or as short as required, and the number of data words in different tokens may vary greatly. The address field and extension bit are used to convey control signals to the pipeline stages. Because the number of words in the data field (the string of...

...SPECIFICATION together as a single logical unit. The output from the ITOD 64 is passed over line 65 to an arithmetic logic unit (ALU) 66. A first output from the ALU 66 is passed over line 67 to a read-only memory (ROM) state machine 68. The output from the ROM state...bit stream. A separate set of index signals, including flag signals, are generated by each state machine to handle some of the processing within that state machine. Values carried in the standards can be used to access machine dependent control signals to emulate the handling of the standard data and non...set to 1, then the second overlapping start code will be treated as data by the Start Code Detector and, therefore no overlapping start code event will occur. This conceals a possible data communications error. If ignore(underscore)non(underscore)aligned is set to 0, however the Start Code Detector will...this condition

The video demux (also known as the video parser) can generate an interrupt when it decodes the vbv(underscore)delay for a new video stream (i.e., the first picture to arrive at the video demux after a FLUSH). The interrupt service routine should compute an appropriate value for bit(underscore)count(underscore)target...

12/3,K/26 (Item 26 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00709588

Optical disk and method and apparatus for recording and then playing information back from that disk

Optische Platte und Methode und Gerat zur Aufzeichnung auf und danach Wiedergabe von Informationen von dieser Platte

Disque optique et methode et appareil d'enregistrement et apres cela de reproduction d'informations de cette disque

PATENT ASSIGNEE:

SONY CORPORATION, (214022), 7-35, Kitashinagawa 6-chome Shinagawa-ku,

Tokyo, (JP), (Proprietor designated states: all)

## INVENTOR:

Yonemitsu, Jun, c/o Sony Corp., 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo, (JP)

Iwamura, Ryuichi, c/o Sony Corp., 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo, (JP)

Yoshimura, Shunji, c/o Sony Corp., 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo, (JP)

Kawamura, Makoto, c/o Sony Corp., 7-35, Kitashinagawa 6-chome,  
Shinagawa-ku, Tokyo, (JP)

## LEGAL REPRESENTATIVE:

Melzer, Wolfgang, Dipl.-Ing. et al (8278), Patentanwalte Mitscherlich &  
Partner, Sonnenstrasse 33, 80331 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 673034 A2 950920 (Basic)

EP 673034 A3 000906

EP 673034 B1 030716

APPLICATION (CC, No, Date): EP 95103980 950317;

PRIORITY (CC, No, Date): JP 9474445 940319

DESIGNATED STATES: DE; FR; GB

RELATED DIVISIONAL NUMBER(S) - PN (AN):

(EP 2003011857)

INTERNATIONAL PATENT CLASS (V7): G11B-027/32; G11B-020/12; G11B-020/10;

G11B-020/18; G11B-027/30; G11B-007/00; G11B-027/10; H04N-005/92;

H04N-007/32; G11B-020/14

ABSTRACT WORD COUNT: 189

## NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB95	9370
CLAIMS B	(English)	200329	8886
CLAIMS B	(German)	200329	7635
CLAIMS B	(French)	200329	10555
SPEC A	(English)	EPAB95	21312
SPEC B	(English)	200329	20932
Total word count - document A			30687
Total word count - document B			48008
Total word count - documents A + B			78695

...SPECIFICATION or more name fields are needed, sequential name field form a suitable "string" in which the entire name or the chapter is recorded.

In that event, the chapter name pointer simply identifies the

first name field in this string.

Pointer to Stream Parameters: This 2-byte field preferably includes several "pointers" which identify respective 4-byte stream parameter fields in the...

...SPECIFICATION or more name fields are needed, sequential name fields form a suitable "string" in which the entire name of the chapter is recorded. In that event, the chapter name pointer simply identifies the first name field in this string.

Pointer to Stream Parameters: This 2-byte field preferably includes several "pointers" which identify respective 4-byte stream parameter fields in the...

12/3,K/32 (Item 32 from file: 348)  
 DIALOG(R)File 348:EUROPEAN PATENTS  
 (c) 2007 European Patent Office. All rts. reserv.

00484290

Method of recording and reproducing video format signal by a plurality of  
 recording media

PATENT ASSIGNEE:

PIONEER ELECTRONIC CORPORATION, (537920), No. 4-1, Meguro 1-chome,  
 Meguro-ku Tokyo 153, (JP), (applicant designated states: DE;FR;GB)

INVENTOR:

Temma, Tetsuya, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Nakajima, Yasuharu, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Matsuura, Hiroyasu, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Tobe, Takeo, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Kono, Jun, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Fujimura, Takuo, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Kikuchi, Isao, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)  
 Takada, Atsushi, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
 Tokorozawa-city, Saitama, (JP)

LEGAL REPRESENTATIVE:

Sturt, Clifford Mark et al (50501), MARKS & CLERK 57-60 Lincoln's Inn  
 Fields, London WC2A 3LS, (GB)

PATENT (CC, No, Kind, Date): EP 459835 A2 911204 (Basic)

EP 459835 A3 930519

EP 459835 B1 961030

APPLICATION (CC, No, Date): EP 91304980 910603;

PRIORITY (CC, No, Date): JP 90143590 900601

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS (V7): H04N-009/79;

ABSTRACT WORD COUNT: 88

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	150
CLAIMS B	(English)	EPAB96	166
CLAIMS B	(German)	EPAB96	136
CLAIMS B	(French)	EPAB96	181
SPEC A	(English)	EPABF1	9331
SPEC B	(English)	EPAB96	9352
Total word count - document A			9482
Total word count - document B			9835
Total word count - documents A + B			19317

...SPECIFICATION level of the abnormal state depending on whether the servo  
 state is in trouble or in the so-called specific reproduction mode. For  
 instance, the slider servo and the tracking servo are closed in the  
normal state. However, in the case of a special reproducing  
 mode including a jumping operation like a scanning operation, the  
 tracking servo is repetitively set into the...

...SPECIFICATION level of the abnormal state depending on whether the servo state is in trouble or in the so-called specific reproduction mode. For instance, the slider servo and the tracking servo are closed in the normal state. However, in the case of a special reproducing mode including a jumping operation like a scanning operation, the tracking servo is repetitively set into the...

12/3,K/34 (Item 34 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2007 European Patent Office. All rts. reserv.

00482669  
High definition signal recording apparatus and its recording medium.

PATENT ASSIGNEE:

PIONEER ELECTRONIC CORPORATION, (537920), No. 4-1, Meguro 1-chome,  
Meguro-ku Tokyo 153, (JP), (applicant designated states: DE;FR;GB)

INVENTOR:

Akiyama, Toru, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
Tokorozawa-City, Saitama, (JP)  
Okuda, Yoshiyuki, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
Tokorozawa-City, Saitama, (JP)  
Tozaki, Akihiro, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
Tokorozawa-City, Saitama, (JP)  
Sugihara, Motooki, c/o Pioneer Tokorozawa Plant, 2610, Hanazono 4-chome,  
Tokorozawa-City, Saitama, (JP)

LEGAL REPRESENTATIVE:

Sturt, Clifford Mark et al (50501), MARKS & CLERK 57-60 Lincoln's Inn  
Fields, London WC2A 3LS, (GB)  
PATENT (CC, No, Kind, Date): EP 459615 A2 911204 (Basic)  
EP 459615 A3 921021  
APPLICATION (CC, No, Date): EP 91303329 910416;  
PRIORITY (CC, No, Date): JP 90143589 900601  
DESIGNATED STATES: DE; FR; GB  
INTERNATIONAL PATENT CLASS (V7): H04N-007/01; H04N-009/79;  
ABSTRACT WORD COUNT: 90

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	467
SPEC A	(English)	EPABF1	9547
Total word count - document A			10014
Total word count - document B			0
Total word count - documents A + B			10014

...SPECIFICATION level of the abnormal state depending on whether the servo state is in trouble or in the so-called specific reproduction mode. For instance, the slider servo and the tracking servo are closed in the normal state. However, in the case of a special reproducing mode including

12/3,K/54 (Item 54 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2007 WIPO/Thomson. All rts. reserv.

00238238

VIDEO SPECIAL EFFECTS SYSTEM  
 SYSTEME PRODUISANT DES EFFETS VIDEO SPECIAUX

Patent Applicant/Assignee:

AMPEX SYSTEMS CORPORATION,  
 LINDHOLM Dennis A,

Inventor(s):

LINDHOLM Dennis A,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9312502 A1 19930624

Application: WO 92US10948 19921216 (PCT/WO US9210948)

Priority Application: US 91810758 19911218

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

CA GB JP US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 41932

Patent and Priority Information (Country, Number, Date):

Patent: ...19930624

Fulltext Availability:

Detailed Description

Publication Year: 1993

### Detailed Description

... approximately half way between two events defining different states.

The exact

point at which a parameter state changes can be operator controlled by providing an event defining a first parameter state at the last frame desired for

the first state and then providing an event at the next frame time which

defines a desired different state for the parameter. As an example, a control ...special effect system 12 later operates during the running of the effect to provide interpolation of the specified parameter from its status at a preceding event to its status at the new event.

The first field time is inherently an event at which all parameters are set equal to nominal default values. The parameters remain at those values unless some subsequent event changes the parameter. In...

### Second approach

S1	446	BD()DVD OR BD()ROM OR HDMV
S9	155713	BUTTON? OR (ACTIVE OR NORMAL OR SELECT???) (2W) STATE??
S10	152208	GRAPHIC???
S11	145	S1 AND S9 AND S10
S12	1	S11 AND PY=1963:2002
S13	24	S11 AND AY=1963:2002
S14	24	S12 OR S13
S15	24	IDPAT (sorted in duplicate/non-duplicate order)
S16	24	IDPAT (primary/non-duplicate records only)

16/3,K/1 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2007 European Patent Office. All rts. reserv.



16/3,K/9 (Item 9 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0016176799 - Drawing available  
 WPI ACC NO: 2006-708439/200673  
 XRPX Acc No: N2006-557615  
 Reproduction apparatus for recording medium, executes event process  
 corresponding to event, dependent on reproduction status information  
 included in event  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)  
 Inventor: **IKEDA W**; KAKIUCHI T; KUWANO H; MATSUNAGA S; TAKAMATSU R;  
 YAMAGUCHI T; YAMAMOTO K  
 Patent Family (1 patents, 111 countries)  
 Patent Application  

Number	Kind	Date	Number	Kind	Date	Update
WO 2006092996	A1	20060908	WO 2006JP303148	A	20060222	200673 B

Priority Applications (no., kind, date): JP 200557955 A 20050302

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2006092996	A1	JA	124	52		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG  
 MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM  
 SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
 FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
 SD SE SI SK SL SZ TR TZ UG ZM ZW

Inventor: **IKEDA W...**

Alerting Abstract ...USE - For recording medium such as **Blu-ray** disk-ROM (BD-ROM), compact disk-ROM (CD-ROM) and DVD-ROM...

#### Original Publication Data by Authority

Inventor name & address:

...**IKEDA, Wataru**

16/3,K/10 (Item 10 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0016116675 - Drawing available  
 WPI ACC NO: 2006-648304/200667  
 XRPX Acc No: N2006-522845  
 Information recording medium e.g. **blu-ray** disk-ROM includes  
 scenario control description data associated with each of titles for  
 controlling reproduction order of titles  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)  
 Inventor: **IKEDA W**; KUWANO H; MATSUNAGA S; TAKAMATSU R  
 Patent Family (1 patents, 111 countries)  
 Patent Application  

Number	Kind	Date	Number	Kind	Date	Update
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FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
SD SE SI SK SL SZ TR TZ UG ZM ZW

Recording medium e.g. blu-ray-ROM disk stores playlist data  
including mainpath and sub-path data specifying audio-video clips as main  
clip and sub-clip and synchronized reproduction sections...

Inventor: OKADA T...

...YAHATA H

Alerting Abstract ...USE - For blu-ray read only memory  
(BD-ROM) disk...

Original Publication Data by Authority

Inventor name & address:

YAHATA, Hiroshi...

...OKADA, Tomoyuki

16/3,K/8 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016240432 - Drawing available  
WPI ACC NO: 2006-772078/200679  
XRAM Acc No: C2006-239523  
XRPX Acc No: N2006-598658

Information recording medium, e.g. blu-ray disk-ROM, stores  
program to record signature data to file list and file list containing hash  
value and filename of signature data

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; KANAMARU T; KUWANO H; MATSUNAGA S; OTO H

Patent Family (1 patents, 1 countries)

Patent	Application
Number	Kind Date Number Kind Date Update
JP 2006277389	A 20061012 JP 200596148 A 20050329 200679 B

Priority Applications (no., kind, date): JP 200596148 A 20050329

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
JP 2006277389	A	JA	50	46		

Information recording medium, e.g. blu-ray disk-ROM, stores  
program to record signature data to file list and file list containing hash  
value and filename of signature data

Inventor: IKEDA W...

Alerting Abstract ...USE - Used for an information recording medium such  
as a blu-ray disk-ROM (BD-ROM) and DVD...

Original Publication Data by Authority

Inventor name & address:

...IKEDA W

WO 2006109718 A1 JA 134 43

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

Recording medium e.g. Blu-ray disk ROM has instructions to set  
seamless connection between subclips referenced by sub-path information,  
based on connection state between main-clips referenced by main...

Inventor: OKADA T......YAHATA HAlerting Abstract ...USE - For Blu-ray disk ROM (BD-ROM...

Original Publication Data by Authority

Inventor name &amp; address:

YAHATA, Hiroshi......OKADA, Tomoyuki

16/3,K/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0016328911 - Drawing available

WPI ACC NO: 2007-045080/200705

Related WPI Acc No: 2007-045081; 2007-045082

XRPX Acc No: N2007-031355

Recording medium e.g. blu-ray-ROM disk stores playlist data  
including mainpath and sub-path data specifying audio-video clips as main  
clip and sub-clip and synchronized reproduction sections, and table with  
sub-clips for reproduction

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: OKADA T; YAHATA H

Patent Family (1 patents, 111 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2006109716	A1	20061019	WO 2006JP307441	A	20060407	200705 B

Priority Applications (no., kind, date): JP 2005111425 A 20050407; JP

2005111426 A 20050407; JP 2005111427 A 20050407; JP 2005111428 A

20050407; JP 2005111429 A 20050407

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006109716 A1 JA 135 43

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

16/3,K/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016398843 - Drawing available  
WPI ACC NO: 2007-115015/200712  
XRPX Acc No: N2007-082336  
Optical disk e.g. DVD has data surface and label surface containing disk identification information  
Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)  
Inventor: HAMASAKA H; ISHIHARA S; MURAKI K; NAKAMURA T; YAHATA H  
Patent Family (1 patents, 1 countries)  
Patent                      Application  
Number      Kind   Date   Number      Kind   Date   Update  
JP 2006331517   A   20061207   JP 2005152101   A   20050525   200712   B

Priority Applications (no., kind, date): JP 2005152101   A   20050525

Patent Details  
Number      Kind   Lan   Pg   Dwg   Filing   Notes  
JP 2006331517   A   JA   16   8

...Inventor: YAHATA H

Alerting Abstract ...USE - For DVD-RAM, rewritable **<b>Blu-ray**  
</b> disk (BD-RE), recordable DVD (DVD-R) and recordable BD (BD-R), on which a label area is provided for printing details of recorded...

Original Publication Data by Authority

Inventor name & address:  
...YAHATA H

16/3,K/6 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016328913 - Drawing available  
WPI ACC NO: 2007-045082/200705  
Related WPI Acc No: 2007-045080; 2007-045081  
XRPX Acc No: N2007-031357  
Recording medium e.g. **Blu-ray** disk ROM has instructions to set seamless connection between subclips referenced by sub-path information, based on connection state between main-clips referenced by main-path information  
Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)  
Inventor: OKADA T; YAHATA H  
Patent Family (1 patents, 111 countries)  
Patent                      Application  
Number      Kind   Date   Number      Kind   Date   Update  
WO 2006109718   A1   20061019   WO 2006JP307443   A   20060407   200705   B

Priority Applications (no., kind, date): JP 2005111425   A   20050407; JP 2005111426   A   20050407; JP 2005111427   A   20050407; JP 2005111428   A   20050407; JP 2005111429   A   20050407

Patent Details  
Number      Kind   Lan   Pg   Dwg   Filing   Notes

...Inventor: YAHATA H

...NOVELTY - The information recording medium records the data format for video recording and again records the video data such as blu-ray disk (BD)-ROM based on the information recorded in the data format for video recording.

Original Publication Data by Authority

Inventor name & address:

...YAHATA H

16/3,K/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016407428 - Drawing available

WPI ACC NO: 2007-123600/200712

XRPX Acc No: N2007-086908

Disk drive for laptop personal computer, has output terminal which is arranged at position in contact with input terminal on disk in order to supply electrical signal to electronic paper

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: YAHATA H; YAMAMOTO S

Patent Family (1 patents, 111 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
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WO 2006126640	A1	20061130	WO 2006JP310460	A	20060525	200712 B
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Priority Applications (no., kind, date): JP 2005152102 A 20050525

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
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WO 2006126640	A1	JA	73	31		
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National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

Inventor: YAHATA H...

Alerting Abstract USE - For digital versatile disk (DVD) drive, hard disk drive (HDD), blu-ray disk (BD) drive and erasable optical disk drive used in camcorder, laptop personal computer (PC) and notebook personal computer...

Original Publication Data by Authority

Inventor name & address:

YAHATA, Hiroshi...

YAHATA H...

16/3,K/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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0016651190 - Drawing available

WPI ACC NO: 2007-366277/200735

XRPX Acc No: N2007-272897

Information recording medium for e.g. Blu-ray disk, is recorded  
with reproduction menu with same structure for every menu panel

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: MATSUNAGA S; YAHATA H

Patent Family (1 patents, 1 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
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JP 2007048383	A	20070222	JP 2005232062	A	20050810	200735 B
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Priority Applications (no., kind, date): JP 2005232062 A 20050810

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
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JP 2007048383	A	JA	44	45		
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Information recording medium for e.g. Blu-ray disk, is recorded  
with reproduction menu with same structure for every menu panel

...Inventor: YAHATA H

Alerting Abstract ...USE - For e.g. Blu-ray disk (BD), ROM,  
compact disk-ROM, DVD-ROM, etc., used in video recording apparatus (claimed

...

Original Publication Data by Authority

Inventor name & address:

...YAHATA H

16/3,K/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016620554 - Drawing available

WPI ACC NO: 2007-335491/200732

XRPX Acc No: N2007-248342

Information recording medium, e.g. DVD, records video data based on  
information recorded in data format for video recording

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: MATSUNAGA S; YAHATA H

Patent Family (1 patents, 1 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
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JP 2007036663	A	20070208	JP 2005216993	A	20050727	200732 B
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Priority Applications (no., kind, date): JP 2005216993 A 20050727

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
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## Inventor Search

## Patent Files

File 347:JAPIO Dec 1976-2007/Mar(Updated 070809)(c) 2007 JPO & JAPIO

File 348:EUROPEAN PATENTS 1978-2007/ 200731(c) 2007 European Patent Office

File 349:PCT FULLTEXT 1979-2007/UB=20070809UT=20070802 (c) 2007 WIPO/Thomson

File 350:Derwent WPIX 1963-2007/UD=200752 (c) 2007 The Thomson Corporation

Set	Items	Description
S1	277	AU=(YAHATA, H? OR YAHATA H?)
S2	66	AU=(MCCROSSAN, J? OR MCCROSSAN J?)
S3	20852	AU=(OKADA, T? OR OKADA T?)
S4	238	AU=(IKEDA, W? OR IKEDA W?)
S5	21152	S1 OR S2 OR S4 OR S3
S8	68	HDMV
S9	12	S5 AND S8
S10	4055	BLU()RAY
S11	100	S5 AND S10
S14	110	S9 OR S11
S15	110	IDPAT (sorted in duplicate/non-duplicate order)
S16	87	IDPAT (primary/non-duplicate records only)

16/3,K/1 (Item 1 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0016665346 - Drawing available

WPI ACC NO: 2007-380431/200736

XRAM Acc No: C2007-137616

XRPX Acc No: N2007-284260

Information recording device e.g. DVD-video disk, records predetermined time and day corresponding to each photographed image based on hierarchy of menu that is displayed with respect to video information

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: MATSUNAGA S; YAHATA H

Patent Family (1 patents, 1 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2007049461	A	20070222	JP 2005232063	A	20050810	200736 B

Priority Applications (no., kind, date): JP 2005232063 A 20050810

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
JP 2007049461	A	JA	36	36		

...Inventor: YAHATA H

Alerting Abstract USE - For information recording device such as DVD-video disk, blu-ray disk (BD), compact disk CD-ROM, DVD-ROM, etc...

Original Publication Data by Authority

Inventor name & address:

Document Type: Newswire; Trade

Word Count: 955

... premastering and DVD-Video production. Sonic offers a comprehensive array of DVD-Audio authoring systems, from the OneClick DVD add-on for SonicStudio and SonicStudio HD, through complete DVD-Audio multi-user workgroups.

Master DVD-Audio With a Single Click

OneClick DVD makes it easy for SonicStudio and SonicStudio HD users to create basic DVD-Audio titles with a click of a button. It demystifies and streamlines the entire process of authoring for multiple formats, supporting the familiar workflow of CD productions in Red Book format to the...

19990304

24/3,K/20 (Item 1 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB

(c)2007 The Gale Group. All rts. reserv.

12342516 SUPPLIER NUMBER: 63562293 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Sony Introduces First HDTV-Capable DIRECTV Receiver, Plus New Set-Top Boxes

With Interactive Television and Caller ID; New Lineup Includes SAT-HD100,

SAT-A60 and SAT-B60.

Business Wire, 2623

July 19, 2000

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 1252 LINE COUNT: 00106

... 1080i-capable televisions such as the Sony KP-53HS10 and KP-61HS10 rear-projection TVs. The SAT-HD100 DIRECTV PLUS receiver includes an output select button that allows you to toggle and select from the following video outputs available - 480i composite and VHF/UHF, 480i component, 1080i component, 1080i VGA.

The SAT-HD100 features an integrated program guide which seamlessly displays all standard digital-quality and high definition DIRECTV programming, as well as digital terrestrial signals and programming received via off-air antenna.

Unique to the SAT-HD100 is the fluorescent front-panel...

20000719



**Second approach**

Set Items Description

S12 589230 BLU () RAY OR BLURAY OR (BD () (DISK? ? OR DISC? ? )) OR BD()ROM OR  
BDMV OR BD(J OR HDI OR HIGH () DEFINITION OR HD OR (HIGH ()CAPACITY  
) OR HDMV OR BD()DVD

S13 56527 (ACTIVE OR NORMAL OR SELECT???) (2W) STATE??

S17 48895 BUTTON? (10N) (STATE?? OR GRAPHIC? OR ANIMATE? ? OR ANIMATI? OR  
SOUND? OR AUDIO? OR VIDEO?)

S22 549 S12 (30N) (S13 OR S17)

S23 89 S22 AND PY=1963:2002

S24 52 RD (unique items)

24/3,K/5 (Item 5 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

(c) 2007 The Gale Group. All rts. reserv.

01666757 SUPPLIER NUMBER: 15058370 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Hacking HD SC Setup to meet the needs. (techniques, products to circumvent  
Apple's hard drive software and to customize Apple's hard drive subsystem  
in Macintosh microcomputers) (MacInTouch: Bugs & Tips) (Column)  
(Tutorial)

Ford, Ric

MacWEEK, v8, n6, p62(1)

Feb 7, 1994

DOCUMENT TYPE: Tutorial ISSN: 0892-8118

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 889 LINE COUNT: 00069

...ABSTRACT: only file is 4Kbytes on a 240Mbyte drive, and 8Kbytes on a  
500Mbyte volume. One way of foiling this is to use multiple partitions, but  
HD SC Setup will not recognize non-Macintosh segments. Using the  
Custom button in graphical partition mode will enable sectors  
to be labeled as scratch segments, but they will not be recognized on the  
desktop. Restoring these to Macintosh format...

... an important function completely lacking in HD SC Setup.

Doing the two-step

Programmer Fabrizio Oddone devised a novel solution to the  
partitioning problem of HD SC Setup. The process combines HD SC  
Setup with his own utility, and it works like this:

You open HD SC Setup and select the Partition button and  
then the Custom button to get to its graphical partitioning  
mode.

Next, you define multiple partitions of any size. Only one can be a  
Macintosh partition, so the others are defined as "scratch" partitions...

19940207

24/3,K/15 (Item 3 from file: 621)

DIALOG(R)File 621:Gale Group New Prod. Annou. (R)

(c) 2007 The Gale Group. All rts. reserv.

01820629 Supplier Number: 54005971 (USE FORMAT 007 FOR FULLTEXT)

World's First DVD-Audio Authoring Systems Now Shipping; OneClick DVD and  
DVD AV Workstation Enable Seamless DVD-Audio Production.

Business Wire, p1018

March 4, 1999

Language: English Record Type: Fulltext

Language: English Document Type: Conference Paper (PA); Journal Paper (JP)

Treatment: Theoretical (T); Experimental (X)

Abstract: Magnetic head-disk interfaces (**HDI**) which are designed so that the mechanical spacing, between the magnetic recording head and spinning disk media, is so small that frequent intermittent contacts occur during normal steady state operation, can be said to be operating in the "proximity" recording regime. Mechanical spacing ("fly height") modulation, with characteristic frequency well above the estimated air bearing resonance frequencies, but well below slider ringing frequencies, has been observed in the proximity recording regime. In this paper, the effect of slider preload change, and the effect of atmospheric pressure change, on the frequency and amplitude of such fly height modulation, as measured using laser Doppler vibrometry, is reported. A simple analytical model was developed to explain the existence of the modulation and its observed dependence on applied gram load. (6 Refs)

Subfile: B

Descriptors: magnetic disc storage; magnetic heads; magnetic recording

Identifiers: frequency domain; magnetic head-disk interface resonance; proximity recording; slider; fly height modulation; laser Doppler vibrometry; analytical model; air bearing; mechanical spacing

Class Codes: B3120B (Magnetic recording)

Copyright 1999, IEE

Abstract: Magnetic head-disk interfaces (**HDI**) which are designed so that the mechanical spacing, between the magnetic recording head and spinning disk media, is so small that frequent intermittent contacts occur during normal steady state operation, can be said to be operating in the "proximity" recording regime. Mechanical spacing ("fly height") modulation, with characteristic frequency well above the estimated air bearing resonance frequencies, but well below slider ringing frequencies, has been observed in the proximity recording regime. In this paper, the effect of slider preload change, and the effect of atmospheric pressure change, on the frequency and amplitude of such fly height modulation, as measured using laser Doppler vibrometry...

...Identifiers: slider;

1999

File 2:INSPEC 1898-2007/Jul W3(c) 2007 Institution of Electrical Engineers  
File 6:NTIS 1964-2007/Jul W5(c) 2007 NTIS, Intl Cpyrght All Rights Res  
File 8:Ei Compendex(R) 1884-2007/Jul W3 (c) 2007 Elsevier Eng. Info. Inc.  
File 34:SciSearch(R) Cited Ref Sci 1990-2007/Jul W4 (c) 2007 The Thomson Corp  
File 35:Dissertation Abs Online 1861-2007/Jul (c) 2007 ProQuest Info&Learning  
File 56:Computer and Information Systems Abstracts 1966-2007/Jul(c) 2007 CSA.  
File 60:ANTE: Abstracts in New Tech & Engineer 1966-2007/Jul (c) 2007 CSA.  
File 65:Inside Conferences 1993-2007/Jul 25(c) 2007 BLDSC all rts. reserv.  
File 95:TEME-Technology & Management 1989-2007/Jul W3(c) 2007 FIZ TECHNIK  
File 99:Wilson Appl. Sci & Tech Abs 1983-2007/Jun (c) 2007 The HW Wilson Co.  
File 144:Pascal 1973-2007/Jul W3(c) 2007 INIST/CNRS  
File 256:TecInfoSource 82-2007/Aug(c) 2007 Info.Sources Inc  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec(c) 2006 The Thomson Corp  
File 266:FEDRIP 2007/JunComp & dist by NTIS, Intl Copyright All Rights Res  
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13(c) 2002 The Gale Group

Set	Items	Description
S1	5145	BLU()RAY OR BLURAY OR (BD() (DISK? ? OR DISC? ? )) OR BD()-ROM OR BDMV OR BD(J OR HDI
S2	7283	(HIGH()DEFINITION OR HD OR (HIGH()CAPACITY) OR HDMV)(15N)(-RECORDING OR VIDEO OR GRAPHICS OR ANIMATION OR AUDIO OR DVD OR DISC?? OR DISK?)
S3	12200	S1 OR S2
Limitall/s3		
S4	22	(NORMAL OR ACTIVE OR SELECT?? OR FIRST OR SECOND OR TRIGGER OR TRANSITION) (4W) (STATE OR FIELD? ?)
S5	579	BUTTON? OR TRIGGER? OR EVENT? ? OR WIDGET? OR DIALOG() B-OX? OR GRAPHIC()REPRESENT???? OR (USER(2N)(INPUT???? OR INTERFACE?)) OR MENU() BAR? ? OR SLIDER?
S6	187	(VIDEO? ? OR GRAPHIC?)(2W)STREAM?
S7	755	S5 OR S6
S9	3	S4 AND S7
S12	3	S9 AND PY=1963:2002
S13	2	RD (unique items)

13/5,K/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2007 Institution of Electrical Engineers. All rts. reserv.

07198653 INSPEC Abstract Number: B1999-05-3120B-049  
Title: An explanation of the observed frequency domain behavior of head-disk interface resonances in the proximity recording regime  
Author(s): Harrison, J.C.; Altshuler, K.J.; Huynh, C.M.  
Author Affiliation: Seagate Technol., Longmont, CO, USA  
Journal: IEEE Transactions on Magnetics Conference Title: IEEE Trans. Magn. (USA) vol.35, no.2, pt.1 p.933-8  
Publisher: IEEE,  
Publication Date: March 1999 Country of Publication: USA  
CODEN: IEMGAQ ISSN: 0018-9464  
SICI: 0018-9464(199903)35:2:1L.933:EOFD;1-V  
Material Identity Number: I101-1999-004  
U.S. Copyright Clearance Center Code: 0018-9464/99/\$10.00  
Conference Title: Second Asia-Pacific Magnetic Recording Conference (APMRC'98)  
Conference Date: 29-31 July 1998 Conference Location: Singapore

**2002**

...3-CCD interlaced-scan camera. It boasts a robust signal-to-noise ratio, sophisticated color correction and high performance DSP, as well as an external trigger mode for field-on-demand operation. The HV-D30 is compatible with all Eagle Pan/Tilt systems for complete plug and play systems solutions.

For more information on...  
...that can be easily updated to highlight new promotions or information. The AirSho system is currently available in both 40- and 60-inch screen sizes.

**High Capacity Hard Disk Drives**

Hitachi's full line of hard disk drives will be on display, including the 3.5-inch DK32DJ series and 2.5...Computer Division, supplies high-performance computer storage products and multimedia products to OEMs, value-added resellers, system integrators and distributors. The division's products include high-capacity hard disk drives, LCD/LCOS projectors, CRT monitors, color laser beam printers and flat panel and plasma displays.

Hitachi America, Ltd., a subsidiary of Hitachi...

ISSN: 1042-0711 LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 2565 LINE COUNT: 00217

... by rival consumer electronics giants: The Toshiba Alliance's Super Density Disc (SD), and Sony-Philips' Multi Media Compact Disc (MMCD). Proposed applications ran from high-definition audio to increased data storage for CD-ROM to a whole new consumer video format. Of all the possible applications, quality video on a single...redundancy is another area in which preparation prior to encoding can improve the resulting MPEG-2 video. Redundancy of video information is built into every video stream that originates on film. During telecine, individual frames of film are duplicated at regular intervals during the 3:2 process. This 3:2 is needed to convert 24 frames-per-second film into 30 (29.97) frames-per-second (59.97 field-per-second) NTSC video. For example, two fields derived from film frame A are followed by three fields from film frame B, etc. Two video...

19960400

15/3,K/6 (Item 1 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2007 ProQuest Info&Learning. All rts. reserv.

01237111 98-86506  
Video on the desktop: High demands on disk drive performance and capacity  
Hospodor, Andy  
Computer Technology Review v16n5 PP: 44, 50 May 1996  
ISSN: 0278-9647 JRNL CODE: CTN  
WORD COUNT: 1526

...TEXT: not only a place to safekeep downloaded video files, but also enabling the entire migration from word processing to full motion desktop video.

Video Imperatives: High Capacity And Uninterrupted Throughput

Adequate disk drive capacity is the cost of entry for desktop video. An hour of video, depending on the compression method, typically...

...the application. This is because video is time-sensitive. Home TV broadcast quality video is based on NTSC determined standards-30 frames of video per second with two fields of interlaced video per frame. This information must be continuously delivered to the frame buffer in the display device, otherwise the video stream breaks up and the audio degrades. Audio is often the critical application, as the human ear is sensitive to out-ofsync video and phase errors...

15/3,K/7 (Item 1 from file: 610)  
DIALOG(R)File 610:Business Wire  
(c) 2007 Business Wire. All rts. reserv.

00692028 20020408098B7386 (USE FORMAT 7 FOR FULLTEXT)  
Hitachi Showcases Latest Multimedia Solutions at NAB 2002-Hitachi Denshi and Hitachi America Demonstrate a Broad Range of Professional Broadcast, Video, Presentation and Storage Products  
Business Wire  
Monday, April 8, 2002 08:05 EDT  
JOURNAL CODE: BW LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

## NPL Full Text Files

File 275:Gale Group Computer DB(TM) 1983-2007/May 31 (c) 2007 The Gale Group  
 File 47:Gale Group Magazine DB(TM) 1959-2007/May 23 (c) 2007 The Gale group  
 File 621:Gale Group New Prod.Annou.(R) 1985-2007/May 31 (c) 2007 The Gale Group  
 File 636:Gale Group Newsletter DB(TM) 1987-2007/May 31 (c) 2007 The Gale Group  
 File 148:Gale Group Trade & Industry DB 1976-2007/May 31 (c)2007 The Gale Group  
 File 624:McGraw-Hill Publications 1985-2007/Jun 01 (c) 2007 McGraw-Hill Co. Inc  
 File 98:General Sci Abs 1984-2007/May (c) 2007 The HW Wilson Co.  
 File 553:Wilson Bus. Absolute 1982-2007/May (c) 2007 The HW Wilson Co  
 File 15:ABI/Inform(R) 1971-2007/Jun 04 (c) 2007 ProQuest Info&Learning  
 File 635:Business Dateline(R) 1985-2007/Jun 02 (c) 2007 ProQuest Info&Learning  
 File 9:Business & Industry(R) Jul/1994-2007/May 30 (c) 2007 The Gale Group  
 File 610:Business Wire 1999-2007/Jun 04 (c) 2007 Business Wire.  
 File 810:Business Wire 1986-1999/Feb 28 (c) 1999 Business Wire  
 File 647:CMP Computer Fulltext 1988-2007/Aug W3 (c) 2007 CMP Media, LLC  
 File 674:Computer News Fulltext 1989-2006/Sep W1 (c) 2006 IDG Communications  
 File 696:DIALOG Telecom. Newsletters 1995-2007/Jun 01 (c) 2007 Dialog  
 File 369:New Scientist 1994-2007/Dec W5 (c) 2007 Reed Business Information Ltd.  
 File 613:PR Newswire 1999-2007/Jun 04 (c) 2007 PR Newswire Association Inc  
 File 813:PR Newswire 1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc  
 File 370:Science 1996-1999/Jul W3 (c) 1999 AAAS  
 File 20:Dialog Global Reporter 1997-2007/Jun 04 (c) 2007 Dialog  
 File 16:Gale Group PROMT(R) 1990-2007/May 31 (c) 2007 The Gale Group  
 File 160:Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group  
 File 484:Periodical Abs Plustext 1986-2007/May W4 (c) 2007 ProQuest  
 File 634:San Jose Mercury Jun 1985-2007/Jun 01 (c) 2007 San Jose Mercury News

Set	Items	Description
S1	40375	BLU(RAY OR BLURAY OR (BD()(DISK? ? OR DISC? ? )) OR BD()-ROM OR BDMV OR BD()J OR HDI
S2	164167	(HIGH()DEFINITION OR HD OR (HIGH()CAPACITY) OR HDMV)(15N)(-RECORDING OR VIDEO OR GRAPHICS OR ANIMATION OR AUDIO OR DVD OR DISC?? OR DISK?)
S3	186755	S1 OR S2
S4	1081	(NORMAL OR ACTIVE OR SELECT?? OR FIRST OR SECOND OR TRIGGER OR TRANSITION) (4W) (STATE OR FIELD? ?)
S5	50800	BUTTON? OR TRIGGER? OR EVENT? ? OR WIDGET? OR DIALOG() B-OX? OR GRAPHIC?(REPRESENT????? OR (USER(2N)(INPUT???? OR INTERFACE?)) OR MENU() BAR? ? OR SLIDER?
S6	9346	(VIDEO? ? OR GRAPHIC?)(2W)STREAM?
S7	56480	S5 OR S6
S12	28	S4 (40N) S7
S14	16	S12 AND PY=1963:2002
S15	11	RD (unique items)

15/3,K/3 (Item 1 from file: 148)  
 DIALOG(R)File 148:Gale Group Trade & Industry DB  
 (c)2007 The Gale Group. All rts. reserv.

08724382 SUPPLIER NUMBER: 18368413 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
 Digital video disc pre-mastering: new tools demanded by the new format.  
 (Digital Versatile Disc format)  
 Ely, Mark  
 Advanced Imaging, v11, n4, p26(4)  
 April, 1996

APPLY; GENERATE; FILL; PIXEL; VALUE; BASED; WEIGHT; COMPONENT

Class Codes

International Classification (Main): H04N-007/01, H04N-007/12, H04N-007/68, H04N-009/74

(Additional/Secondary): G06T-001/00, G09G-005/00, H04N-011/02, H04N-011/04, H04N-007/24, H04N-009/76

US Classification, Issued: 348578000, 348584000, 348598000, 375240210, 375240290

File Segment: EngPI; EPI;

DWPI Class: T01; W02; W03; W04; P85

Manual Codes (EPI/S-X): T01-J08A; T01-J10B; T01-J10G; W02-F06C; W03-A11A;

W03-A11C; W04-C10A3; W04-F01F1; W04-F01H3; W04-N05A; W04-P01A1; W04-P01X

Original Titles:

...CIRCUIT AND METHOD FOR GENERATING FILLER PIXELS FROM THE ORIGINAL PIXELS  
IN A VIDEO STREAM

...

...Circuit and method for generating filler pixels from the original pixels  
in a video stream

...

...Circuit and method for generating filler pixels from the original pixels  
in a video stream

...

...CIRCUIT AND METHOD FOR GENERATING FILLER PIXELS FROM THE ORIGINAL PIXELS  
IN A VIDEO STREAM

Alerting Abstract ...USE - For estimating filler pixel values from  
original pixel values in video stream of high definition  
television (HDTV...

Original Publication Data by Authority

Original Abstracts:

...the filler pixel and the original first video image to generate a  
resulting video image (72). One can use such an image processing circuit to  
generate a filler video field from an original video field and  
to merge the filler and original fields to generate a resulting video frame  
(74). Such an image processing circuit...

...

Basic Derwent Week: 200018...

Patent Family (9 patents, 86 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2000008862	A1	20000217	WO 1999US17606	A	19990803	200018 B
AU 199955469	A	20000228	AU 199955469	A	19990803	200030 E
EP 1103144	A1	20010530	EP 1999942001	A	19990803	200131 E
			WO 1999US17606	A	19990803	
CN 1311957	A	20010905	CN 1999809301	A	19990803	200201 E
KR 2001072186	A	20010731	KR 2001701405	A	20010202	200208 E
US 20020047930	A1	20020425	US 199895201	P	19980803	200233 E
			WO 1999US17606	A	19990803	
			US 2001775873	A	20010201	
TW 454423	A	20010911	TW 1999113345	A	19990803	200242 E
JP 2002522985	W	20020723	WO 1999US17606	A	19990803	200263 E
			JP 2000564387	A	19990803	
US 6909752	B2	20050621	US 199895201	P	19980803	200543 E
			WO 1999US17606	A	19990803	
			US 2001775873	A	20010201	

Priority Applications (no., kind, date): US 2001775873 A 20010201; WO 1999US17606 A 19990803; US 199895201 P 19980803

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2000008862 A1 EN 63 18

National Designated States,Original: AE AL AM AT AU AZ BA BB BG BR BY CA

CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH

GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 199955469 A EN Based on OPI patent WO 2000008862

EP 1103144 A1 EN PCT Application WO 1999US17606

Based on OPI patent WO 2000008862

Regional Designated States,Original: AT BE CH CY DE DK ES FI FR GB GR IE

IT LI LU MC NL PT SE

US 20020047930 A1 EN Related to Provisional US 199895201

C-I-P of application WO 1999US17606

TW 454423 A ZH

JP 2002522985 W JA 96 PCT Application WO 1999US17606

Based on OPI patent WO 2000008862

US 6909752 B2 EN Related to Provisional US 199895201

C-I-P of application WO 1999US17606

## Alerting Abstract WO A1

NOVELTY - The pixel value components are generated using original pixel values of video image. A filler pixel value is generated based on weight of pixel value components. The filler pixel and original video image are combined to generate a video image.

DESCRIPTION - A motion value equal to difference between values of original pixels of video images, is generated. When the motion value becomes a non-zero number, it indicates motion of filler video image. An INDEPENDENT CLAIM is also included for image processing method.

USE - For estimating filler pixel values from original pixel values in video stream of high definition television (HDTV).

ADVANTAGE - Detects significant inter-field motion, thereby assigns correct weighting to spatial and temporal approaches. Distinguishes thin line from edges more accurately, thus produces fewer visual artifacts.

Title Terms/Index Terms/Additional Words: IMAGE; PROCESSOR; CIRCUIT; VIDEO;



Alerting Abstract WO A1

NOVELTY - Two video fields of the video sequence are compared to determine if one of the fields is a repeat field. A telecine mode is declared if sequence of repeat fields corresponds to a telecine pattern.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1.Telecine mode detecting apparatus;

2.Encoding system

USE - For high definition television video encoding system.

ADVANTAGE - Redundant fields can be identified and dropped from the video bit stream. Ensures seamless transition by instructing multiple encoders simultaneously to drop fields. Provides accuracy in detecting matched fields in a sequence and provides cost savings by using single logic device.

DESCRIPTION OF DRAWINGS - The figure shows schematic block diagram of High definition television video encoding system.

Title Terms/Index Terms/Additional Words: TELECINE; MODE; DETECT; METHOD;  
HIGH; DEFINE; TELEVISION; VIDEO; ENCODE; SYSTEM; COMPARE; TWO; FIELD;  
SEQUENCE; DETERMINE; REPEAT

Class Codes

International Classification (Main): H04N-007/26

(Additional/Secondary): H04N-007/01

File Segment: EPI;

DWPI Class: W02; W03; W04

Manual Codes (EPI/S-X): W02-F07; W03-A11A; W04-N05A

Telecine mode detecting method for high definition television video encoding system, involves comparing two video fields of sequence to determine repeat field

Alerting Abstract ...USE - For high definition television video encoding system.

...

...ADVANTAGE - Redundant fields can be identified and dropped from the video bit stream. Ensures seamless transition by instructing multiple encoders simultaneously to drop fields. Provides accuracy in detecting matched fields in a sequence and provides cost savings by using single logic device...

...DESCRIPTION OF DRAWINGS - The figure shows schematic block diagram of high definition television video encoding system.

14/5,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0009906655

WPI ACC NO: 2000-205813/200018

XRPX Acc No: N2000-153111

Image processor circuit for video applications, generates filler pixel value based on weight of pixel value components of video image

Patent Assignee: EQUATOR TECHNOLOGIES INC (EQUA-N)

Inventor: ZHOU Q

## Patent Abstract Files

File 347:JAPIO Dec 1976-2006/Dec(Updated 070403)

File 350:Derwent WPIX 1963-2007/UD=200734

Set Items Description

S1 3434 BLU()RAY OR BLURAY OR (BD()DISK? ? OR DISC? ? )) OR BD()-ROM OR BDMV OR BD(J OR HDI

S2 8029 (HIGH()DEFINITION OR HD OR (HIGH()CAPACITY) OR HDMV)(15N)(-RECORDING OR VIDEO OR GRAPHICS OR ANIMATION OR AUDIO OR DVD OR DISC?? OR DISK?)

S3 11004 S1 OR S2

Limitall/s3

S4 173 (NORMAL OR ACTIVE OR SELECT?? OR FIRST OR SECOND OR TRIGGER OR TRANSITION) (4W) (STATE OR FIELD? ?)

S5 430 BUTTON? OR TRIGGER? OR EVENT? ? OR WIDGET? OR DIALOG() B-OX? OR GRAPHIC()(REPRESENT???? OR (USER(2N)(INPUT???? OR INTERFACE?)) OR MENU() BAR? ? OR SLIDER?

S6 367 (VIDEO? ? OR GRAPHIC?)(2W)STREAM?

S7 755 S5 OR S6

S8 13 S4 (20N) S7

S11 1 S8 AND PY=1963:2002

S12 17 S4 AND S7

S13 4 S12 NOT S8

S14 1 S13 AND PY=1963:2002

11/5,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0010893739 - Drawing available

WPI ACC NO: 2001-514108/200156

XRPX Acc No: N2001-380897

Telecine mode detecting method for high definition television

video encoding system, involves comparing two video fields of sequence to determine repeat field

Patent Assignee: TIERNAN COMMUNICATIONS INC (TIER-N)

Inventor: HU Y; RODGERS S W; WILLSON B

Patent Family (2 patents, 91 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2001013647	A1	20010222	WO 2000US40598	A	20000808	200156 B
AU 200077583	A	20010313	AU 200077583	A	20000808	200156 E

Priority Applications (no., kind, date): US 1999375976 A 19990817

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2001013647 A1 EN 54 14

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY

BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN

IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ

PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH

GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200077583 A EN Based on OPI patent WO 2001013647

Filing Language: English  
Fulltext Word Count: 10286

Patent and Priority Information (Country, Number, Date):

Patent: ...20001130

Fulltext Availability:

Detailed Description

Publication Year: 2000

Detailed Description

... describe the user interface including presentation to the user and response to events. The source code includes elements for text fields, input fields, selection fields, buttons, timers, images, branches, and functions.

In addition. the system has a compiler for tokenizing the elements within the source file; parsing the tokenized elements; and...

...string database containing the user interface text in one or more languages; a function database having a listing of function calls; an icon database containing graphics to be displayed for the user on the platform-, and an event group database for conveniently grouping and labeling events.

A user interface engine resides...Xlluuompuoo qz)u-cig HDNV-Hg>

-OZZ SjU;)I.UQjg PIED ;)AIJOV 3qj

sozuununsmojqZz)jqpj 'NVA'NaWIl'ID919S'NOIIdO'INgAgNO

LfIdNl'gClfllDNI'HOWH'NOILDXnA'OCI'HDMV-Hg :Su'm0110J

QLII;)pnlouisJUDLUOIgPIUDQAIIOV3qI -j3A;)jppjuojo)jooop'uoijuoijddu

all uppim s;)imuoj lo4uoo uuoji;)d ol pz)sn on) OZZ sluoLuoig pluD

QAIJOV 01...the physical display

such that the display may not have the physical capacity to display the complete data entry field, the left and right cursor button can be defined to move or scroll the data within the visible area left/right in order to keep it in the 1 ible region...

data

structure for managing reproduction of video and audio data as shown in FIG. 2...

...information for managing reproduction

7

of a title by chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, various versions of a title or portions of a title may be recorded, and 5 therefore, reproduced from the recording media. For example...

...to reproduce this data structure. Based on the information contain 10 therein, as well as user input received over the user interface (e.g.. control buttons on the recording and reproducing apparatus or a remote associated with the apparatus) , the controller 10 controls the drive 3 to reproduce the audio/video...

...user input may specify a

15 title, chapter, and/or path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the title management information, chapter management information and/or path management information...

16/3,K/24 (Item 24 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00758789 \*\*Image available\*\*

A PLATFORM INDEPENDENT SYSTEM OF SPECIFYING AN EMBEDDED USER INTERFACE  
SYSTEME INDEPENDANT DE PLATE-FORME INDIQUANT UNE INTERFACE UTILISATEUR  
ENFOUIE

Patent Applicant/Assignee:

MATSUSHITA MOBILE COMMUNICATION DEVELOPMENT CORP OF U S, Suite 2-352,  
1225 Nothbrook Parkway, Suwanee, GA 30174, US, US (Residence), US  
(Nationality)

Inventor(s):

ZUSMANIS Eriks A, 120 Ridge Road, Berkeley Lake, GA 30096, US,  
MADAN Esteban C, 3522 Ontario Court, Buford, GA 30519, US,

Legal Representative:

BOSS Gerald R (agent), Troutman Sanders LLP, Suite 5200, 600 Peachtree  
Street, N.E., Atlanta, GA 30308-2216, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200072184 A2-A3 20001130 (WO 0072184)

Application: WO 2000US14364 20000524 (PCT/WO US0014364)

Priority Application: US 99317522 19990524

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR  
TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

LG ELECTRONICS INC, 20, Yoido-dong, Youngdungpo-gu, 150-010 Seoul, KR, KR  
(Residence), KR (Nationality)

## Inventor(s):

UM Soung Hyun, 18-701, Samho Apt., Bisan-dong, Dongan-gu, 431-050 Anyang,  
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YOO Jea Yong, C-306, Maebong Samsung APT., Dogok-dong, Kangnam-gu,  
135-270 Seoul, KR,  
PARK Sung Wan, 337-1403, Byuksan APT., Doogyun Maeul, Jungja-dong,  
Jangan-gu, 440-300 Suwon-si, KR,  
SEO Kang Soo, 606-503, Chowon Hanyang Apt., 897-5, Pyoungan-dong,  
Dongan-gu, 431-075 Anyang, Kyunggi-do, KR,  
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156-090 Seoul, KR,  
KIM Byung Jin, 111-204, Hansol Chungu APT., 110, Jeongja-dong,  
Bundang-gu, 463-010 Sungnam, Kyunggi-do, KR,

## Legal Representative:

PARK Lae Bong (agent), 1Fl., Dongun Bldg., 413-4, Dogok 2-dong,  
Kangnam-gu, Seoul 135-272, KR,

## Patent and Priority Information (Country, Number, Date):

Patent: WO 200401748 A1 20031231 (WO 0401748)  
Application: WO 2003KR1016 20030523 (PCT/WO KR2003001016)  
Priority Application: KR 1020020035009 20020621

## Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6126

Fulltext Availability:

Detailed Description

## Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An effective  
data structure for managing reproduction of video and audio data  
20 recorded on the high-density read-only optical disk such as a BD  
-ROM  
is not yet available.

## 3. DISCLOSURE OF INVENTION

In the data structure according to the present invention, a  
general information file is recording...

...erred

embodiments thereof will now be described with reference to the  
15 accompanying drawings,  
A high-density optical disk,, for example,, a Blu-Ray ROM  
(BD-ROM) in accordance with the invention may have a file or

recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

### 3\* DISCLOSURE OF INVENTION

The data structure of the present invention may have an 25 architecture that provides for managing the...

...understood,  
preferred embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig. 2...

...directory includes title directories  
TITLE001 TITLE002, TITLE003, etc. for each title of audio and video (A/V) data recorded on the recording medium (e.g., BD-ROM) .

Each

TITLE directory includes a general information file linfo.ttl1, a PLAYLIST directory in which playlist files (e.g., real (\*.rpls) and virtual (\*.vpls) ) for...

...information for

8

managing reproduction of a title by chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, various versions of a title or portions of a title may be recorded, and 5 therefore, reproduced from the recording media. For example...

...3

to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...user input

may specify a title, chapter, and/or path to reproduce. This user

11

input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the TITLE directories (Fig. 2) and/or general information files (Figs. 2 and...

16/3,K/23 (Item 23 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2007 WIPO/Thomson. All rts. reserv.

01079106 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF VIDEO  
DATA RECORDED THEREON

SUPPORT D'ENREGISTREMENT A STRUCTURE DE DONNEES PERMETTANT DE GERER LA  
LECTURE DE DONNEES VIDEO ENREGISTREES DESSUS

Patent Applicant/Assignee:

16/3,K/22 (Item 22 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01079107 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF VIDEO  
DATA RECORDED THEREON

SUPPORT D'ENREGISTREMENT COMPRENANT UNE STRUCTURE DE DONNEES POUR GERER LA  
REPRODUCTION DES DONNEES VIDEO ENREGISTREES SUR CE SUPPORT  
D'ENREGISTREMENT

Patent Applicant/Assignee:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200401749 A1 20031231 (WO 0401749)

Application: WO 2003KR1111 20030605 (PCT/WO KR2003001111)

Priority Application: KR 1020020035010 20020621

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 9179

Fulltext Availability:

Detailed Description

Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective

20 data structure for managing reproduction of video and audio data

to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...Paths 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of the recording medium (e.g. . BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

The TPs for multiple reproduction paths...

...control of the 15 single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information is...or paths to which the associated playlist belongs. The property 'Property' may indicate a particular function for a playlist to conduct.

Figs. 12-14 illustrate graphical representations of different methods of structuring navigation control using the data structure of Fig. 11. As explained before, a multi-path data stream recorded in the AV stream area of, for example, a BD-ROM

19 may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files that are...

...user editing of clip play-back order. As explained before, a multi-path data stream recorded in an AV stream area of, for example, a BD-ROM may be managed as a plurality of clip files.

The plurality of clip files are associated with a plurality of 20 real and/or virtual...

...sequencer 'PlayList Sequencer'

22 provides navigation control information. The property 'Property' may indicate a particular function for a playlist to conduct.

Fig. 16 illustrates a graphical representation of a method of structuring navigation control using the data structure of Fig. 5 15. There are three playlist sequencers in the example of...

...was described above with respect to Figs. 4A and 4B in recording the data structures of Figs. 9-16 on the recording medium (e.g., BD-ROM). Reproduction by the recording and reproducing apparatus of Fig. 7 is also substantially the same, except that the playlist sequencer or sequencers are reproduced, and...



different methods of structuring navigation control using the data structure of Fig. 11;

Fig. 15 illustrates another embodiment of the data structure for navigation control for use with the data structure of Fig. 9; 25 and

Fig. 16 illustrates a graphical representation of a method of structuring navigation control using the data structure of Fig.

15.

## 5. MODES FOR CARRYING OUT THE INVENTION

In order that...

...preferred embodiments thereof will now be described with reference to the accompanying drawings.

6

A high-density optical disk, for example,, a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig. 2...

...the same way a book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, 5 different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the recording...

...level, or a multi-angle data stream recorded as a title in a physical data recording area of a 30 recording medium (e.g.. a BD-ROM) may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...corresponding to paths

1, 2, and 3 respectively are recorded in the AV stream area within the physical data -recording area of, for example, the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...3

to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing 20 apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface 25 preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10...

...data structure according

## D'ENREGISTREMENT ET DE REPRODUCTION

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200401750 A1 20031231 (WO 0401750)  
Application: WO 2003KR1146 20030611 (PCT/WO KR2003001146)  
Priority Application: KR 1020020035421 20020624; KR 1020020071275  
20021115

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
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(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 8691

Fulltext Availability:

Detailed Description

Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective  
10 data structure for managing reproduction of video and audio data  
recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

## 3. DISCLOSURE OF INVENTION

The recording medium according to the present invention  
15 includes a navigation area storing navigation control information...  
...Fig. 11 illustrates an embodiment of the data structure for  
navigation control for use with the data structure of Fig. 9;  
Figs. 12-14 illustrate graphical representations of

The TPs for multiple reproduction paths...

...control of the

15 single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information...or paths to which the associated playlist belongs. The property 'Property' may indicate a particular function for a playlist to conduct.

Figs. 12-14 illustrate graphical representations of different methods of structuring navigation control using the data structure of Fig. 11. As explained before, a multi-path data stream recorded in the AV stream area of, for example, a BD-ROM

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may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files that are...

...user editing of clip play-back order. As explained before, a multi-path data stream recorded in an AV stream area of, for example, a BD-ROM may be managed as a plurality of clip files.

The plurality of clip files are associated with a plurality of  
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real and/or virtual...

...sequencer 'PlayList Sequencer'

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provides navigation control information. The property 'Property' may indicate a particular function for a playlist to conduct.

Fig. 16 illustrates a graphical representation of a method of structuring navigation control using the data structure of Fig.

15. There are three playlist sequencers in the example of FIG...

...was described above with respect to Figs. 4A and 4B in recording the data structures of Figs. 9-16 on the recording medium (e.g., BD-ROM). Reproduction by the recording and reproducing apparatus of Fig. 7 is also substantially the same, except that the playlist sequencer or sequencers are reproduced, and...

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DIALOG(R) File 349:PCT FULLTEXT  
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RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE REPRODUCTION PATH VIDEO DATA RECORDED THEREON AND RECORDING  
AND REPRODUCING METHODS AND APPARATUSES  
SUPPORT D'ENREGISTREMENT COMPORTANT UNE STRUCTURE DE DONNEES POUR LA  
GESTION DE LA REPRODUCTION DE DONNEES VIDEO A VOIES DE REPRODUCTION  
MULTIPLES QUI Y SONT ENREGISTREES ET PROCESSES ET APPAREILS

...preferred embodiments thereof will now be described with reference to the accompanying drawings.

6

A high-density optical disk,, for examplef a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig. 2...

...the same way a book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, 5 different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the...

...parental-level, or a multi-angle data stream recorded as a title in a physical data recording area of a recording medium (e.g., a BD-ROM) may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...corresponding to paths 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...3 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10 controls...

...data structure according to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...Paths 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of the recording medium (e.g., BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

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Kangnam-gu, Seoul 135-272, KR,

## Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR1147 20030611 (PCT/WO KR2003001147)  
Priority Application: KR 1020020035421 20020624; KR 1020020071275  
20021115

## Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
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SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 8947

## Fulltext Availability:

Detailed Description

## Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective

10 data structure for managing reproduction of video and audio data  
recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

## 3. DISCLOSURE OF INVENTION

The recording medium according to the present invention

15 includes a navigation area storing navigation control information...

...Fig. 11 illustrates an embodiment of the data structure for

navigation control for use with the data structure of Fig. 9;

Figs. 12-14 illustrate graphical representations of

different methods of structuring navigation control using the data  
structure of Fig. 11;

Fig. 15 illustrates another embodiment of the data structure

for navigation control for use with the data structure of Fig. 9;

25 and

Fig. 16 illustrates a graphical representation of a method

of structuring navigation control using the data structure of Fig.

15.

## 5. MODES FOR CARRYING OUT THE INVENTION

In order that...

function for a playlist to conduct.

Figs. 12-14 illustrate graphical representations of different methods of structuring navigation control using the data structure of Fig. 11. As explained before, a multi-path data stream recorded in the AV stream area of, for example, a BD-ROM

19

may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files that are...

...user editing of clip play-back order. As explained before, a multi-path data stream recorded in an AV stream area of, for example, a BD-ROM may be managed as a plurality of clip files.

The plurality of clip files are associated with a plurality of  
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real and/or virtual...

...sequencer 'PlayList Sequencer'

22

provides navigation control information. The property 'Property' may indicate a particular function for a playlist to conduct.

Fig. 16 illustrates a graphical representation of a method of structuring navigation control using the data structure of Fig. 5 15. There are three playlist sequencers in the example of...

...was described above with respect to Figs. 4A and 4B in recording the data structures of Figs. 9-16 on the recording medium (e.g., BD-ROM). Reproduction by the recording and reproducing apparatus of Fig. 7 is also substantially the same, except that the playlist sequencer or sequencers are reproduced, and...

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DIALOG(R) File 349:PCT FULLTEXT  
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01079110 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE INCLUDING NAVIGATION CONTROL INFORMATION FOR MANAGING REPRODUCTION OF VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES  
SUPPORT D'ENREGISTREMENT PRESENTANT UNE STRUCTURE DE DONNEES COMPRENANT DES INFORMATIONS DE COMMANDE DE NAVIGATION POUR LA GESTION DE LA REPRODUCTION DE DONNEES VIDEO ENREGISTREES SUR LEDIT SUPPORT, PROCEDES ET APPAREILS D'ENREGISTREMENT ET DE REPRODUCTION

Patent Applicant/Assignee:

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(Residence), KR (Nationality)

Inventor(s):

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KIM Byung Jin, 111-204, Hansol Chungu APT., 110, Jeongja-dong, Bundang-gu, Sungnam, Kyunggi-do 463-010, KR,

PARK Sung Wan, 337-1403, Byuksan APT., Doogyun Maeul, Jungja-dong, Jangan-gu, Suwon-si 440-300, KR,

SEO Kang Soo, 606-503, Chowon Hanyang Apt., 897-5, Pyoungan-dong, Dongan-gu, Anyang, Kyunggi-do 431-075, KR,

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, 5 different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the...

...or a multi-angle data stream

recorded as a title in a physical data recording area of a 30 recording medium (e.g., a BD-ROM) may be managed as a plurality

of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...to paths

10 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in

an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...3

to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing 20 apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio...

...optical disk. For example, the user input

may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface

25 preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10...

...data structure according

to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may

be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...1, 2, and 3 respectively are recorded

in the AV stream area within the physical data recording area of the recording medium (e.g. f BD-ROM) in an interleaved manner. As

mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

The TPs for multiple reproduction paths...

...control of the

15 single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded

in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information is...or paths to which the associated playlist belongs. The property 'Property' may indicate a particular

## Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
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(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
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(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 8579

## Fulltext Availability:

Detailed Description

## Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective

data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention

includes a navigation area storing navigation control information...

...Fig. 11 illustrates an embodiment of the data structure for

navigation control for use with the data structure of Fig. 9;

Figs. 12-14 illustrate graphical representations of

different methods of structuring navigation control using the data structure of Fig. 11;

Fig. 15 illustrates another embodiment of the data structure

for navigation control for use with the data structure of Fig. 9;

25 and

Fig. 16 illustrates a graphical representation of a method

of structuring navigation control using the data structure of Fig.

is.

## 5, MODES FOR CARRYING OUT THE INVENTION

In order that...

...preferred embodiments thereof will now be described with reference to the accompanying drawings.

6

A high-density optical disk, for example, a Blu-Ray ROM

(BD-ROM) in accordance with the invention may have a file or data

structure for managing reproduction of video and audio data as shown in Fig. 2...

...the same way a

book is often organized into chapters.



20 to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...1, 2. and 3 respectively are recorded in the AV stream area within the physical data recording area of 14 the recording medium (e.g., BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

The TPs for multiple reproduction paths...

...control of the single-path and multi-path A/V streams recorded as 'a single title 10 in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information is...

16/3,K/19 (Item 19 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01079111 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF MULTIPLE TITLE VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES

SUPPORT D'ENREGISTREMENT COMPORTANT UNE STRUCTURE DE DONNEES POUR GERER LA REPRODUCTION DE MULTIPLES DONNEES VIDEO DE TITRE ENREGISTREES SUR CELUI-CI, ET PROCEDES ET APPAREILS D'ENREGISTREMENT ET DE REPRODUCTION

Patent Applicant/Assignee:

LG ELECTRONICS INC, 20, Yoido-dong, Youngdungpo-gu, Seoul 150-010, KR, KR (Residence), KR (Nationality)

Inventor(s):

KIM Byung Jin, 111-204, Hansol Chungu APT., 110, Jeongja-dong, Bundang-gu, Sungnam, Kyunggi-do 463-010, KR,

SEO Kang Soo, 606-503, Chowon Hanyang Apt., 897-5, Pyoungan-dong, Dongan-gu, Anyang, Kyunggi-do 431-075, KR,

UM Soung Hyun, 18-701, Samho Apt., Bisan-dong, Dongan-gu, Anyang, Kyunggi-do 431-050, KR,

HYUN Eun Sil, B01 Chungwoon Villa, 419-36, Sadang-dong, Dongjak-gu, Seoul 156-090, KR,

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YOO Jea Yong, C-306, Maebong Samsung APT., Dogok-dong, Kangnam-gu, Seoul 135-270, KR,

Legal Representative:

PARK Lae Bong (agent), 1Fl., Dongun Bldg., 413-4, Dogok 2-dong, Kangnam-gu, Seoul 135-272, KR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200401752 A1 20031231 (WO 0401752)

Application: WO 2003KR1148 20030611 (PCT/WO KR2003001148)

Priority Application: KR 1020020035421 20020624; KR 1020020071275 20020624

## Detailed Description

... to  
the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

### 3. DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of at...

...25 preferred embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk for exemplar a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as 30 shown in Fig...

...the same way a  
book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the recording...

...parental-level, or a multi-angle data stream recorded as a title in a physical data recording area of a recording medium (e.g., a BD-ROM) may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and...

...to paths  
1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e. g. , control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the 15 controller 10 controls the drive 3 to reproduce the audio...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the 20 path management information reproduced from the optical disk, the controller 10...

...structure according

may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the 15 controller 10...

16/3,K/18 (Item 18 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01079121 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF MULTIPLE REPRODUCTION PATH VIDEO DATA FOR AT LEAST A SEGMENT OF A TITLE RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES SUPPORT D'ENREGISTREMENT COMPORTANT UNE STRUCTURE DE DONNEES GERANT LA REPRODUCTION DE DONNEES VIDEO DE PLUSIEURS VOIES DE REPRODUCTION POUR AU MOINS UN SEGMENT DE TITRE ENREGISTRE DESSUS, ET PROCEDES ET APPAREILS D'ENREGISTREMENT ET DE REPRODUCTION

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR1197 20030618 (PCT/WO KR2003001197)

Priority Application: KR 1020020035421 20020624

Designated States:

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 6325

Fulltext Availability:

Detailed Description

Fulltext Word Count: 6375

Fulltext Availability:  
Detailed Description

#### Detailed Description

... the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

#### 3\* DISCLOSURE OF INVENTION

The recording medium according to the present invention has a data structure for managing reproduction of at...

...understood,  
preferred embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig. 2...

...the same way a  
hook is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the recording...

...information for managing

9  
reproduction of multiple reproduction path video data recorded on the recording medium.  
At least one clip file (\*.m2ts) recorded on the BD-ROM may correspond to a title and the A/V stream recorded in the clip file 5 is recorded in the form of MPEG2 - formatted transport...

...for use in the data

structure according to Fig. 2. As mentioned above, at least one clip file belonging to the file structure of the BD-ROM corresponds to a title and the A/V stream contained in the clip file is recorded 25 as a series of MPEG2-formatted TPs.

A...

...5 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input

...of the

15

single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information is...

16/3,K/17 (Item 17 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01079122 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF MULTIPLE REPRODUCTION PATH VIDEO DATA FOR AT LEAST A SEGMENT OF A TITLE RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES SUPPORT D'ENREGISTREMENT DONT LA STRUCTURE DE DONNEES PERMET DE GERER LA REPRODUCTION DE DONNEES VIDEO SUR DES VOIES DE REPRODUCTION MULTIPLES POUR AU MOINS UN SEGMENT DE TITRE ENREGISTRE SUR LEDIT SUPPORT; PROCEDES ST DISPOSITIFS D'ENREGISTREMENT

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YOO Jea Yong, C-306, Maebong Samsung APT., Dogok-dong, Kangnam-gu, Seoul 135-270, KR,

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Priority Application: KR 1020020035420 20020624

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

preferred embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig. 2...

...the same way a book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, different titles, various versions of a title or portions of a title 25 may be recorded, and therefore, reproduced from the...

...parental-level, or a multi-angle data stream recorded as a title in a physical data recording area of a recording medium (e.g., a BD-ROM) may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...corresponding to paths 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...3 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user 5 interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...disk. For example, the user input may specify a path to reproduce. This user input may be specified, 10 for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10 controls...

...data structure according to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example,, of the BD-ROM may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...1. 2. and 3 respectively are recorded in the AV stream area within the physical data recording area of the recording medium (e. g. f BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment, be different camera angles.

The TPs for multiple reproduction paths...

SUPPORT D'ENREGISTREMENT PRESENTANT UNE STRUCTURE DE DONNEES PERMETTANT DE GERER LA REPRODUCTION DE PLUSIEURS DONNEES VIDEO A TRAJET DE REPRODUCTION POUR AU MOINS UN SEGMENT D'UN TITRE ENREGISTRE SUR LEDIT SUPPORT ET PROCEDES ET DISPOSITIFS D'ENREGISTREMENT ET DE REPRODUCTION

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SEO Kang Soo, 606-503, Chowon Hanyang Apt., 897-5, Pyoungan-dong, Dongan-gu, Anyang, Kyunggi-do 431-075, KR,

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR1199 20030618 (PCT/WO KR2003001199)

Priority Application: KR 1020020035421 20020624

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

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Fulltext Word Count: 6654

Fulltext Availability:

Detailed Description

Detailed Description

... the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks 10 such as the Blu-ray ROM (BD-ROM) is still under way. An effective data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

### 3. DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of at...

...understood,

data

structure for managing reproduction of video and audio data as shown in Fig. 2...

...same way a

30 book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, different titles, various versions of a title or portions of a title

9

may be recorded, and therefore, reproduced from the...

...data streams in accordance with the data structure of Fig. 2. At least one clip file contained and recorded in the file structure of the BD-ROM is linked to a plurality of playlists (PL1, PL2, PL3, 5 ... ), for example, and managed with the a title. A/V streams of multiple stories...

...and second

transport packets TP1 and TP2 of the first and second stories are sequentially and seamlessly recorded in a data recording area of the BD-ROM such that the first and second transport packets TP1 and TP2 can be seamlessly reproduced.

Fig. 4 further shows that concatenation information of the previous...

...to reproduce this data structure. Based on the information 30 contained therein, as well as user input received over the user interface (e.g. - , control buttons on the recording and reproducing apparatus or a remote associated with the apparatus) , the controller 10 controls the drive 3 to reproduce the audio/video...

...the user input may specify a story (or playback 10 path to reproduce) . This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and navigation information reproduced from the optical disk, the controller 10 controls the reproduction...

...are recorded in different clip files.

As shown in Fig. 9, first and second clip files 1 and 2, in the file structure of the BD-ROM, are linked to the plurality of playlists (PL1, PL2, PL3, ...) of a title. moreover, the first transport packets TP1 associated with the first story and...

16/3,K/16 (Item 16 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01079123 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE REPRODUCTION PATH VIDEO DATA FOR AT LEAST A SEGMENT OF A TITLE  
RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES



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## Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR1206 20030619 (PCT/WO KR2003001206)

Priority Application: KR 1020020036650 20020628

## Designated States:

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 7007

## Fulltext Availability:

Detailed Description

## Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective

10 data structure for managing reproduction of video and audio data  
recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention

15 includes a data structure for managing reproduction of...

...preferred embodiments thereof will now be described with reference  
to the accompanying drawings.

6

A high-density optical disk, for example, a Blu-Ray ROM  
(BD-ROM) in accordance with the invention may have a file or

## Detailed Description

... the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium has a data structure for managing reproduction of at least multiple reproduction path video...

...preferred

embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk, for example, a Blu-ray ROM 30 (BD-ROM) in accordance with the present invention may have a file or data structure for managing reproduction of video and audio data as shown in Fig...

...the same way a

book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM optical disks, different

8

titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced from the...

...30 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus) , the controller 12

controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the 5 controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10...

16/3,K/15 (Item 15 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01081388 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF MULTIPLE PLAYBACK PATH VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES

SUPPORT D'ENREGISTREMENT PRESENTANT UNE STRUCTURE DE DONNEES PERMETTANT DE GERER LA REPRODUCTION DE DONNEES VIDEO A TRAJETS DE LECTURE MULTIPLES ENREGISTREES SUR LEDIT SUPPORT ET PROCEDES ET APPAREILS D'ENREGISTREMENT ET DE REPRODUCTION

Patent Applicant/Assignee:

record data on the recording medium;  
an encoder for encoding at least multiple reproduction  
path video data; and  
a controller for controlling the driver to record one or  
more graphic segments on the recording medium, each of which  
includes graphic data, multiplied with other data, and each  
graphic segment including a plurality of transport packets.

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16/3,K/14 (Item 14 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01081409 \*\*Image available\*\*  
RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING RECORDING AND  
REPRODUCTION OF MULTIPLE PATH DATA RECORDED THEREON AND RECORDING AND  
REPRODUCING METHODS AND APPARATUS

## Patent Applicant/Assignee:

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SEO Kang Soo, 606-503, Chowon Hanyang Apt., 897-5, Pyoungan-dong,  
Dongan-gu, Anyang, Kyunggi-do 431-075, KR,  
UM Soung Hyun, 18-701, Samho Apt., Bisan-dong, Dongan-gu, Anyang,  
Kyunggi-do 431-050, KR,  
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## Patent and Priority Information (Country, Number, Date):

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Priority Application: KR 1020020036651 20020628

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 5585

## Fulltext Availability:

Detailed Description

managing reproduction of graphic data, comprising:  
a data area storing one or more graphic segments, each of which includes graphic data, multiplied with other data, and each graphic segment including a plurality of transport packets.

2 The recording medium of claim 1, wherein the other data includes movie data.

3 The recording medium...

...at least one of movie data, audio data and still picture data.

4 The recording medium of claim 1, wherein each transport packet in a graphic segment has a same packet 15 identifier (PID).

5 The recording medium of claim 1, wherein at least one transport packet in a graphic segment includes an identifier that the transport packet is part of a graphics packet.

6 The recording medium of claim 1, wherein at least one 20 transport packet in the a graphic segment includes a time stamp.

7 The recording medium of claim 1, wherein at least one transport packet in a graphic segment includes graphic information for managing reproduction of graphic images.

8 A method of reproducing a data structure for managing reproduction of graphic data from a recording medium, comprising:  
reproducing one or more graphic segments from the recording medium, each of which includes graphic data, 30 multiplied with other data, and each graphic segment including a plurality of transport packets.

1 6

. An apparatus for reproducing a data structure for managing reproduction of graphic data from a recording medium, comprising:

a driver for driving an optical reproducing device to 5 reproduce data recorded on the recording medium;  
a controller for controlling the driver to reproduce one or more graphic segments from the recording medium, each of which includes graphic data, multiplied with other data, and each graphic segment including a plurality of transport 10 packets.

10 A method of recording a data structure for managing reproduction of graphic data on a recording medium, comprising:  
recording one or more graphic segments on the recording 15 medium, each of which includes graphic data, multiplied with other data, and each graphic segment including a plurality of transport packets.

11 An apparatus for recording a data structure for managing reproduction of graphic data on a recording medium, comprising:  
a driver for driving an optical recording device to

11

indexing each of the graphic images, display timing information for specifying display start time and display duration for each of the graphic images, display-info field for specifying display position and window size of each of the graphic images on a main image, and display-effect field for providing various graphic effects such fade/wipe-in/wipe-out, as described above with reference to FIG. 18.

In an embodiment of a method of recording and managing navigation information for reproduction of graphic images as 10 buttons on the screen, the navigation information is stored as Button-Info contained in menu information, as shown in FIG. 20. The menu information may be stored in a playlist file or stored as an individual file.

Button information is provided for each button. The button

15 information is navigation information for reproduction of graphic images to be displayed as a button. Each button information field includes a length field indicating the length of the button information field,

ref-to

graphic

image

index field for indexing each of the

20 graphic images, display timing information for specifying display start time and display duration for each of the graphic images, display-info field for specifying display position and window size of each of the graphic images on a main image, and display effect field for providing various 25 graphic effects such fade/wipe-in/wipe-out, as described above with reference to FIG. 18.

Fig. 21 illustrates a schematic diagram of an embodiment of...

...3 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to 30 reproduce the data...

...portions of Fig. 21 providing the recording or reproducing function.

The recording medium having a data structure for, and the methods and apparatuses of, managing graphic data for a high density recording medium in accordance with the invention 25 allows one or more graphic images to be overlaid on a movie video or still image simultaneously or individually in succession, allows graphic images to be presented along with audio, and allows displaying of various graphic images such as buttons for selecting associated functions.

while the invention has been disclosed with respect to a limited number of embodiments, those skilled in the art, having the...

#### Claim

1 A recording medium having a data structure for

audio-only clip A/V stream. The syntax of the sub-playitem for graphic images is extended from the syntax of the general subplayitem defined for managing dubbed audio in the BD-RE.

As shown in FIG. 18, the syntax of the sub-playitem for graphic images conforms to the syntax of the general subplayitem but some fields are extended to include graphic control information. Accordingly, only the differences from the general definition will be described. The length field of the sub-playitem is given a unique...

...0 of BD-RE standard.

10

The sub-playitem includes a Clip codec-identifier field for indicating that the sub-playitem is associated with a graphic image and a SubplayItem-type field for specifying a path for displaying the associated graphic image. For example, the Clip codec-identifier field may have a value of 'GRAF' and the SubplayItem-type may have a value of 4.

The sub-playitem includes SubPlayItem-IN-time field for indicating the display time of a beginning graphic image and SubPlayItem-OUT-time for indicating display duration or ending time of all of the graphic images. The sub-playitem further includes ref-to

graphic image-index field for indexing each of the graphic images, display timing information for specifying display start time and display duration for each of the graphic images, display-info field for specifying display position and window size of each of the graphic images on a main image, and display effect field for providing various graphic effects such fade/wipe-in/wipe-out for each of the graphic images.

In-another embodiment of a method of recording and managing navigation information for reproduction of graphic images along with still images, the navigation information is stored as still image information, which includes a

graphic display@info field, as shown in FIG. 19. The still image information may be stored in a playlist file or stored as an individual file. For example, the playlist graphic indicator of FIG. 16 may be newly defined as a graphic display information field in the still image information field.

The graphic display information field includes a length indicator indicating a length of the graphic display information field and a number-of

graphic images field indicating the number of graphic images to be displayed. For each graphic image, the graphic display information field includes the fields of: a ref-to graphic image-index field for

number  
of

graphic

images field indicative of the number of graphic images to be displayed.

For each graphic image, the graphic mark further includes a ref-to

graphic

image-index field for indexing each of the graphic images, display timing information for specifying display start time and display duration for each of the graphic images, display-info field for specifying display position and window size of each of the graphic images on a main image, and display effect field for providing various graphic effects such fade/wipe-in/wipe-out for each of the graphic images.

when the navigation information is stored as playlist graphic indicators, the syntax of the playlist graphic indicator, which is not defined in the BD-RE, is newly defined and a unique version number that is not used in the BD-RE is

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assigned to the playlist graphic indicators, as shown in FIG.

16.

The playlist graphic indicator information field includes a length indicator indicating a length of the playlist still

5 indicator information field and a

number

of

Graphic

Display

positions field indicating the

number of graphic display positions. For each graphic display position, the playlist graphic indicator field further includes a graphic

display

start-time-stamp field, and

10 duration information.

The playlist graphic indicator further includes

number

of

graphic

images field indicative of the number of

graphic images to be displayed. For each image, the following additional fields are provided: a ref-to

graphic

image-index

15 field for indexing each of the graphic images, display timing information for specifying display start time and display duration for each of the graphic images, display info field

for specifying display position and window size of each of the graphic images on a main image, and display effect field for

20 providing various graphic effects such fade/wipe-in/wipe-out.

In another embodiment shown in FIG. 17, navigation information for one or multiple graphic images is stored as sub-playitems in a playlist for playback control of a movie or

FIG. 9.

When reproducing a main stream (e.g., movie video, audio, or still images) recorded after the prescribed segment, the 5 optical disk reproducing apparatus sequentially reproduces the graphic images in the graphic image buffer along with the main stream using the graphic information as described above with reference to FIG. 7 and FIG. 8.

When the graphic images are reproduced along with a movie 10 as shown in FIG. 10, the graphic images are overlaid on the movie video, wherein the graphic images may be overlaid on the movie video simultaneously or individually in succession and the positions of the graphic images on the movie video may be different from each other.

When the graphic images are reproduced along with an audio-only clip as shown in FIG. 11, one or multiple graphic images are displayed at a particular position(s) of the screen, wherein the graphic images may be presented simultaneously or individually in succession as in animations and the positions 20 of the graphic images may be different from each other. When the graphic images are reproduced along with still images as shown in FIG. 12, the graphic images are overlaid on the still images, wherein the graphic images may be overlaid on one still image simultaneously or individually in 25 succession and the positions of the graphic images on the still images may be different from each other.

The graphic images may be presented along with audio and still images as shown in FIG. 13, wherein the graphic images are overlaid on the still images at a particular position(s).

30 The graphic images may be overlaid on one still image simultaneously or individually in succession and the positions of the graphic images on the still images may be different from each other.

8

In an embodiment of a method of recording and managing navigation information for reproduction of the graphic images as shown in FIG. 14, navigation information for one or multiple graphic images is stored in a playlist for playback 5 control of a movie or audio-only clip A/V stream as graphic marks or playlist graphic indicators.

When the navigation information is stored as graphic marks, the mark syntax of, for example, the BD-RE standard may be used for the graphic mark by extending the meaning of each field thereof, as shown in FIG. 15. Accordingly only the difference from the BD-RE standard will be described. The mark type field of the graphic mark is given a unique value that is not defined in the BD-RE standard, for example, 'mark  
type=0x131.

The graphic mark includes ref-to-graphic  
start-index  
field for indexing a beginning graphic image or graphic image group, duration information for specifying display duration required for all of the graphic images, and



the TP extra header includes copy protection information and a packet arrival time...

...header of an MPEG2 TP includes a packet identifier (PID). The PID is given a unique value, for example, 'PID=0x10231' when the packet is a graphics packet.

Because graphic images are recorded as MPEG2 TPs in the recording segment, the recording format of the graphic images is compatible with that of movie data, for example, movie data of the BD-RE format. When graphic images and a main stream are multiplexed in the prescribed recording segment, the main stream corresponds to one among MPEG2 movie data, audio data, or still images.

As shown in FIG. 6, the beginning part of the prescribed recording segment includes a source packet of graphic information for managing reproduction of the graphic images recorded therein. An optical disk reproducing apparatus

6 performs reproduction of the graphic images by checking the number of graphic images, data size, etc using the graphic information.

The graphic images recorded in the prescribed recording 5 segment can be identified by the source packet of the graphic information. As shown in FIG. 7, the graphic information contained in the payload of the source packet may include fields of graphic start end flag, number of images, image info indicating attributes and properties of each graphic image 10 (e.g., position to display a graphic image, presentation time to display a graphic image, duration to display a graphic image, etc.), and image-data-size indicating the size of each graphic image or start position information.

If the graphic start-end-flag field is 101, it indicates 15 the beginning of the graphic data; otherwise it indicates the ending of the graphic data. Some of the fields of the graphic information can be used as information about one graphic image or all of the graphic images.

In an example shown in FIG. 8, the graphic images 20 recorded in the prescribed recording segment can be identified by the TP extra header, wherein the TP extra header of the first source packet of each graphic image includes 2-bit copy protection information and 30-bit graphic information. The graphic information can be defined in the same manner as the 25 graphic information shown in FIG. 7.

The TP extra header of the other source packets includes 2-bit copy protection information and other 30-bit information such as a packet arrival time stamp.

If a high density recording medium such as a BD-ROM disk 30 having graphic images and graphic information recorded in the aforementioned manner is inserted into an optical disk reproducing apparatus, the apparatus conducts a preloading operation that loads all the graphic data recorded in a

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prescribed segment into a graphic image buffer, as shown in

...order that the invention may be fully understood, exemplary embodiments thereof will now be described with reference to the accompanying drawings.

FIG. 3 is a graphical representation of an embodiment of a method of managing graphic data for a high-density optical disk in accordance with the present invention. A main picture image has one or more corresponding graphic images, which have different sizes and color depths.

As shown, the main picture of size 1920x1080 pixels has three different associated graphic images, a graphic image of size 1920x1080 pixels, a graphic image of size 1280x1080 pixels, and a graphic image of size 640x1080 pixels.

The three graphic images have different color depths. The 15 1920x1080 graphic image has an 8-bit color depth, the 1280x1080 graphic image has an 8-bit or 16-bit color depth, and the 640x1080 graphic image has an 8-bit, 16-bit, or 24-bit color depth.

As shown in FIG. 4, a plurality of different graphic 20 images, graphic images 1, 2, and 3, may be simultaneously overlaid on one main picture image and the plurality of graphic images may have different sizes and color depths. The plurality of graphic images may be managed individually or as a group.

The overlaid graphic images and navigation information therefor are multiplexed with main video and audio streams, which will be described in detail below.

FIGS. 5-8 illustrate examples showing how graphic images and navigation information are recorded in a main stream on a 30 high density recording medium such as a BD-ROM. As shown in

FIG. 5, multiple graphic images are recorded in a prescribed recording segment (e.g., A, B, or C) of an audio/video main stream recorded in a data area of a BD-ROM. The multiple 5 graphic images are multiplexed in the prescribed segment.

Graphic images recorded in the prescribed segment, (e.g., A) are graphic images to be overlaid with the main stream recorded after the segment. A graphic image is recorded as a 5 plurality of 192-byte source packets, each comprising a 4-byte TP (Transport Packet) extra header and a 188-byte MPEG2 TP. In the recording segment, only graphic images are recorded or graphic images are multiplexed with the main stream.

The 4-byte TP extra header may include 2-bit copy 10 protection information and 30-bit navigation information for an associated graphic image (e.g., Image-start-end-flag described in detail below) or a 30-bit packet arrival time stamp.

In detail, if a source packet is associated with a graphic image, the TP extra header thereof includes copy protection information and graphic information (e.g., Image-start-end-flag described in detail below). Otherwise,

## 10 3. DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of graphic data.

In one exemplary embodiment, a data area of the recording medium includes one or more graphic segments, each of which includes graphic data, multiplied with other data. For example, the other data includes movie data. Each graphic segment includes a plurality of transport packets.

In one exemplary embodiment, each transport packet in a graphic segment has a same packet identifier (PID).

In another exemplary embodiment, at least one transport packet in a graphic segment includes an identifier that the transport packet is part of a graphics packet.

In a further exemplary embodiment, at least one transport packet in the a graphic segment includes a time stamp.

In a still further exemplary embodiment, at least one transport packet in a graphic segment includes graphic information for managing reproduction of graphic images.

The present invention further provides apparatuses and methods for recording and reproducing the data structure according to the present invention.

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, BRIEF DESCRIPTION...

...of the invention, and together with the description, serve to explain the principles of the present invention.

In the drawings.

FIG. 1 illustrates a graphical representation of main video overlaid with graphic images according to the DVD-Video standard;

FIG. 2 illustrates a structure of graphic data in the DVD-Video standard;

FIG. 3 illustrates a graphical representation of a plurality of graphic images of different sizes and color depths to be overlaid on a main picture according to the present invention;

FIG. 4 illustrates a graphical representation of a main data overlaid with a plurality of graphic images of different sizes and color depths;

FIGS. 5-8 illustrate examples showing how graphic images and navigation information are recorded in a main stream on a high density recording medium according to the present invention;

FIG. 9 illustrates a preloading operation for loading graphic data recorded in a segment into a graphic image buffer;

FIGS. 10-13 illustrate exemplary embodiments of graphic information in accordance with the invention;

FIGS. 14-20 illustrate exemplary embodiments of navigation information in accordance with the invention; and Fig. 21 illustrates...

graphic data for a high-density recording medium such as an optical disk (e.g., a Blu-ray Disc ROM (BD-ROM)).

## 2, BACKGROUND ART

Recording media such as optical disks capable of recording large amounts of high-quality digital video/audio data, for example, DVDs (digital...

...the market. The types of DVDs include DVD-Video, DVD-VR (Video Recording), DVD-Audio, and 15 DVD-AR (Audio Recording).

In the DVD-Video, graphic data to be reproduced in synchronization with a video/audio data stream is defined by the DVD-private format and designated as sub-pictures.

A sub-picture of the graphic data is of size 720x480 20 pixels and has a palette with 2-bit color depth, which can support up to 16 colors. The graphic data is recorded on the DVD after being multiplexed with the video/audio stream.

A run-length coding method according to the DVD-Video standard is applied to the graphic data in which display 25 control information about sub-picture data is included. The display control information includes information on display timing, color change, blending ratio change, display position, size selection, etc.

Operations for providing various graphic effects to the

1

graphic data, such as scroll-up/down, fade/wipe-in/out, and color change, can be performed selectively on a time basis.

Navigation information for the...

...information and language information.

An optical disk reproducing apparatus such as a DVD player displays the main video image and some or all of the graphic image of a sub-picture unit (SPU) as shown in Fig. 1 by blending the images using navigation information, wherein the graphic image of the sub-picture unit (SPU) is overlaid 15 on the main video image on a presentation time basis.

As shown in FIG. 2...

...being synchronized with the audio and video data. As alluded to above, the apparatus displays the main video image and some or all of the graphic image of a sub-picture unit

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(SPU) by blending the images using the navigation information, wherein the graphic image of the sub-picture unit (SPU) is overlaid on the main video image in various ways on a presentation time basis.

The standardization for high-density read-only optical disks such as the Blu-ray disc ROM (BD-ROM) is still under way. A method for effective managing graphic data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

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01109640 \*\*Image available\*\*

RECORDING MEDIUM HAVING A DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
GRAPHIC DATA AND RECORDING AND REPRODUCING METHODS AND  
APPARATUSES

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RECORDING MEDIUM HAVING A DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
GRAPHIC DATA AND RECORDING AND REPRODUCING METHODS AND  
APPARATUSES

Fulltext Availability:

Detailed Description  
Claims

English Abstract

The recording medium includes a data area storing one or more  
graphic segments, each of which includes graphic data,  
multiplied with other data.

Detailed Description

D E S C R I P T I O N

RECORDING MEDIUM HAVING A DATA STRUCTURE FOR  
MANAGING REPRODUCTION OF GRAPHIC DATA AND  
RECORDING AND REPRODUCING METHODS AND APPARATUSES

5 1. TECHNICAL FIELD

The present invention relates to a method of managing

medium is a BD-ROM.

8 The recording medium of claim 1, wherein two or more  
30 graphic image information segments share a same palette  
information segment.

16

. A method of reproducing a data structure for managing  
reproduction of graphic data from a recording medium,  
comprising:  
reproducing at least one graphic image information  
5segment and at least one palette information segment from the  
recording medium, each palette information segment providing  
color information, each graphic image information segment  
providing reproduction information for reproducing one or more  
graphic images.

10 An apparatus for reproducing a data structure for  
managing reproduction of graphic data from a recording medium,  
comprising:  
a driver for driving an optical reproducing device to  
reproduce data recorded on the recording medium;  
a controller for controlling the driver to reproduce at  
least one graphic image information segment and at least one  
palette information segment from the recording medium, each  
palette information segment providing color information, each  
graphic image information segment providing reproduction  
20 information for reproducing one or more graphic images.

11 A method of recording a data structure for managing  
reproduction of graphic data on a recording medium,  
comprising:  
recording at least one graphic image information segment  
25 and at least one palette information segment on the recording  
medium, each palette information segment providing color  
information, each graphic image information segment providing  
reproduction information for reproducing one or more graphic  
images.

12 An apparatus for recording a data structure for  
managing reproduction of graphic data on a recording medium,  
comprising:  
a driver for driving an optical recording device to  
17  
record data on the recording medium;  
an encoder for encoding at least multiple reproduction  
path video data; and  
a controller for controlling the driver to record at  
least one graphic image information segment and at least one  
palette information segment on the recording medium, each  
palette information segment providing color information, each  
graphic image information segment providing reproduction  
information for reproducing one or more graphic images.  
18

because graphic images and still images have the same format.

The image encoder may be a JPEG encoder, MPEG2 I-picture, 25 encoder, etc.

In the first...

...the invention described above with reference to FIGS. 12 and 14, the quantization is performed according to a flow diagram illustrated in FIG. 17.

A graphic image is generated (S20) and a quantization step size is set (S21). The graphic image is encoded (S22) with the given step size, and the size of the encoded image is examined. If the size does not exceed a...

...3 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the data from...

...18 providing the recording or reproducing function.

The data structure of the high density recording medium for, and the methods and the apparatuses of, managing graphic 14

data for a high-density optical disk in accordance with the invention allow high-resolution graphic images to be overlaid on main video reproduced from the high-density optical disk with various sizes and color depths.

While the invention has been...

#### Claim

1 A recording medium having a data structure for managing reproduction of graphic data, comprising:  
a graphic information area including at least one graphic 5 image information segment and at least one palette information segment, each palette information segment providing color information, each graphic image information segment providing reproduction information for reproducing one or more graphic images.

2 The recording medium of claim 1, wherein the reproduction information identifies a palette information segment to use in reproducing one or more graphic images.

3 The recording medium of claim 2, wherein two or more graphic image information segments include reproduction 15 information that identify a same palette information segment.

4 The recording medium of claim 1, wherein each palette information...

...blending ratio indicating a level of transparency for the associated color information.

7 The recording medium of claim 1, wherein the recording

In this embodiment, high-resolution graphic data is recorded on a BD-ROM 30 in accordance with the JPEG format by a lossless encoder comprising a predictor 31 and an entropy encoder 32, and JPEG graphic images are reproduced from the 30 BD-ROM 30 by a lossless decoder comprising an entropy decoder 33 and a predictor 34.

The predictor 31 calculates a prediction value of each pixel and...

...not included.

In a third embodiment of the invention shown in FIG. 14, 10 a discrete cosine transform (DCT) method is used, wherein high-resolution graphic data is encoded in accordance with MPEG2 I-picture format.

As described above with reference to FIG. 12, high resolution graphic data is recorded on a BD-ROM 40 in 15 accordance with the MPEG2 I-picture format by a DCT-based encoder comprising a forward discrete cosine transform (FDCT) unit 41, a quantizer 42, and an entropy encoder 43 and MPEG2 I-picture formatted graphic images are reproduced from the BD-ROM 40 by a DCT-based decoder comprising an entropy 20 decoder 44, a dequantizer 45, and an inverse DCT unit 46.

The MPEG2 I-picture...

...methods are also 25 different.

In a fourth embodiment of the invention shown in FIG. 15, a statistical coding method is used, wherein high-resolution graphic data is encoded by entropy coding.

In this embodiment, high-resolution graphic data is 30 recorded on a BD-ROM 50 by an entropy encoding unit comprising a run-length encoder 51 and a variable length coding (VLC) encoder 52. Graphic images are reproduced from the BD-ROM 50 by an entropy decoding unit comprising an 11 entropy decoder 53 and a VLC decoder 54.

In the case where successive pixels having the...

...encoding method used in the MPEG or JPEG format may be employed.

In a fifth embodiment of the invention shown in FIG. 16f high-resolution graphic data is encoded in accordance with a 15 format identical to the still image coding format.

In this embodiment, high-resolution graphic data is recorded on a BD-ROM 60 and graphic images are reproduced from the BD-ROM 60 in accordance with the still image coding format.

In this case, the structure for stream decoding is relatively simple and a single image encoder and decoder are shared by still image processing and graphic image processing



for individual graphic images. The palette information,  
8  
however, may be shared by the groups of graphic images,  
thereby effectively reducing the size of palette information  
recorded on a high-density recording medium such as a BD-ROM.

In another embodiment of a method of managing graphic  
5 data for a high-density optical disk according to the  
invention, the main picture image is overlaid with graphic  
images by a-blending. If an individual blending ratio is  
assigned to each pixel value as done in the DVD-Video  
standard, the resultant data...

...non  
uniform intervals. An individual blending ratio may be  
20 assigned to each color palette (e.g., indicated as part of  
the palette information), each graphic image, each title of  
main video, or each playlist.

When each color palette is given a blending ratio, the  
blending ratio may be shared by a plurality of graphic images  
25 through the navigation information as described above with  
reference to FIG. 9.

The DVD-Video standard employs a general run-length  
coding method to reduce the data size of 2-bit color depth  
graphic images using a run-length encoder 11 and a run-length  
30 decoder 12, as shown in FIG. 11. In this case, the coding  
efficiency...

...is required. In a first embodiment of  
9  
the invention shown in FIG. 12, a discrete cosine transform  
(DCT) method is used, wherein high-resolution graphic data is  
encoded with compression into JPEG images.

In this embodiment, high-resolution graphic data is  
5 recorded on a BD-ROM 20 in accordance with the JPEG format  
by

a DCT-based encoder comprising a forward discrete cosine  
transform (FDCT) unit 21, a quantizer 22, and an entropy  
encoder 23 and JPEG graphic images are reproduced from the  
BD-ROM 20 by a DCT-based decoder comprising an entropy  
10.decoder 24, a dequantizer 25, and an inverse DCT unit 26.

In the case where a graphic image is encoded in  
accordance with the JPEG format, the graphic image is managed  
in a similar way that still images are recorded and managed.  
The FDCT unit 21 transforms a graphic image from the spatial  
15 domain to the frequency domain on an 8x8 block basis.

The quantizer 22 quantizes the data transformed to the  
frequency...

...to  
prevent information loss.

In a second embodiment of the invention shown in FIG. 13,  
a predictive coding method is used, wherein high-resolution  
25 graphic data is encoded with compression into JPEG images.

differ from application to application, the color depth can be adjusted depending on the target application. All or one of these conditions can be used in determining the color depth of a graphic image. When multiple graphic images are linked to a main picture image, the multiple graphic images may have different color depths.

The size of a graphic image cannot exceed the size of the main picture image and the maximum possible color depth for the graphic image is 24 bits.

One embodiment of a method of managing graphic data for a high-density optical disk according to the present invention employs a multiple color palette structure in which multiple color palettes are defined in the navigation area and used for graphic images. In the multiple color palette structure, palettes are defined for each color depth that is less than 24 bits  
In the multiple color...

...palettes as shown in FIG. 6 can be used, wherein every pixel  
value (e.g., R/G/B or Y/Cb/Cr) used in graphic images is defined in the palette information.

In the multiple color palette structure, fixed-size palettes with null code as shown in FIG. 7 can be used, wherein null code is assigned to every color value of the palettes that are not actually used in graphic images and thereby the size of palettes can be reduced.

In the multiple color palette structure, variable-size palettes as shown in FIG. 8 can be used, wherein only the pixel values that are actually used in graphic images are defined in the palettes.

Palette search information such as a palette number, which points to a palette among the multiple palettes, is defined in each of graphic image information and thereby the palette information can be shared by multiple graphic images.

Fig. 9 illustrates a portion of the navigation information for graphic images recorded on a high density recording medium such as a BD-ROM. As shown in FIG. 9. for example, color palette information including multiple palettes and graphic image information about a plurality of individual graphic images are defined in the navigation information.

The graphic image information about a plurality of individual graphic images may include data size, palette number, and color depth for each graphic image. The palette number field may store one or more palette numbers so that the graphic image may be associated with more than one palette in the palette information.

As shown, the graphic image information may also include information about groups of graphic images instead of the information about a plurality of individual graphic images.

This information may include the same graphic information as

As shown in FIG. 4, a plurality of different graphic

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images may be simultaneously overlaid on one main picture image and the plurality of graphic images may have different sizes and color depths.

An optical disk reproducing apparatus determines the degree of importance of each graphic image to be overlaid based on the contents thereof and displays the graphic image with a color depth proportional to the degree of importance.

For example, an image of the highest importance is displayed with 24-bit color...

...lowest

10 importance is displayed with 8-bit color depth.

In a flow diagram shown in FIG. 5, the optical disk reproducing apparatus generates a graphic image of a maximum color depth of 24 bits (S10) and adjusts the color depth for the graphic image depending on the degree of importance of the contents and size thereof (S11).

If 8-bit color depth is selected (S12), the optical disk reproducing apparatus generates an 8-bit color graphic image and palette information using corresponding navigation control information. Similarly, if 16-bit color depth is selected (S13), the optical disk reproducing apparatus generates a 16-bit color graphic image and palette information using corresponding navigation control information.

If 24-bit color depth is selected (S14), the color depth of the graphic image generated at step S10 remains unchanged.

The generated graphic image is displayed in various ways according to the display control information, as described above with reference to FIGS. 1 and 2.

In the case where only one color depth is used, the data size of a graphic image is large when a high color depth is used. On the other hand, the data size of a graphic image is small but the quality of the graphic image is deteriorated when a low color depth is used.

6

This drawback can be overcome by employing a variable color depth. In other words, the color depth of a graphic image is adjusted depending on the image size, bit rate, data amount, target application, or other conditions.

For example, the size of a graphic image is determined by the product of the numbers of horizontal and vertical pixels; therefore an image of size 720x480 pixels and an image of...

...on the color

sampling format (e.g., Y:Cb:Cr = 4:4:4, 4:2:2, 4:2:0) and the bit rate of a graphic image may vary depending on the video quality, the number of audio streams, etc. The color depth can also be adjusted variably depending on these conditions. In addition, because the contents of a graphic image

one or more graphic images. For example, each palette information segment may have an identifier, and the 25 reproduction information identifies a palette information segment using the identifier for...

...of the invention, and together with the description, serve to explain the principles of the present invention.

In the drawings.

FIG. 1 illustrates a graphical representation of main video overlaid with graphic images according to the DVD-Video standard;

FIG. 2 illustrates a structure of graphic data in the DVD-Video standard;

FIG. 3 illustrates a graphical representation of an embodiment of a method of managing graphic data for a high density recording medium in accordance with the invention;

FIG. 4 illustrates a graphical representation of the main data overlaid with a plurality of graphic images of different sizes and color depths;

FIG. 5 is a flow diagram illustrating an embodiment of a method of managing graphic data in accordance with the invention;

FIGS. 6-8 illustrate embodiments of palette information in accordance with the invention;

FIG. 9 illustrates an embodiment of the navigation information for graphic images recorded on a high density recording medium in accordance with the invention;

FIG. 10 illustrates exemplary pixel groups according to the invention;

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FIG. 11 illustrates a schematic diagram of an encoding/decoding apparatus using the graphic coding format of the DVD-Video standard;

FIGS. 12 through 16 illustrate schematic diagrams of five first through fifth embodiments of encoding/decoding apparatuses of...

...that the invention may be fully understood, 15 exemplary embodiments thereof will now be described with reference to the accompanying drawings.

FIG. 3 is a graphical representation of an embodiment of a method of managing graphic data for a high-density recording medium such as an optical disk in accordance with the present invention. A main picture image has one or more corresponding graphic images, which have different sizes and color depths.

As shown, the main picture of size 1920x1080 pixels has three different associated graphic images, a graphic image of size 1920x1080 pixels, a graphic image of size 1280x1080 pixels, and a graphic image of size 640x1080 pixels.

The three graphic images have different color depths. The 1920x1080 graphic image has an 8-bit color depth, the 1280x1080 graphic image has an 8-bit or 16-bit color depth, and the 640x1080 graphic image has an 8-bit, 16-bit, or 24-bit color depth.

synchronization with a video/audio data stream is defined by the DVD-private format and designated as sub-pictures.

A sub-picture of the graphic data is of size 720x480, 20 pixels and has a palette with 2-bit color depth, which can support up to 16 colors. The graphic data is recorded on the DVD after being multiplexed with the video/audio stream.

A run-length coding method according to the DVD-Video standard is applied to the graphic data in which display 25 control information about sub-picture data is included. The display control information includes information on display timing, color change, blending ratio change, display position, size selection, etc.

Operations for providing various graphic effects to the graphic data, such as scroll-up/down, fade/wipe-in/out, and color change, can be performed selectively on a time basis.

Navigation information for the...

...information and language information.

An optical disk reproducing apparatus such as a DVD player displays the main video image and some or all of the graphic image of a sub-picture unit (SPU) as shown in Fig. 1 by blending the images using navigation information, wherein the graphic image of the sub-picture unit (SPU) is overlaid 15 on the main video image on a presentation time basis.

As shown in FIG. 2...

...being synchronized with the audio and video data. As alluded to above, the apparatus displays the main video image and some or all of the graphic image of a sub-picture unit 2 (SPU) by blending the images using the navigation information, wherein the graphic image of the sub-picture unit (SPU) is overlaid on the main video image in various ways on a presentation time basis.

The standardization for high-density read-only optical disks such as the Blu-ray disc ROM (BD-ROM) is still under way. A method for effective managing graphic data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

### 10 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of graphic data.

In one exemplary embodiment, a graphic information area 15 of the recording medium includes at least one graphic image information segment and at least one palette information segment. Each palette information segment provides color information, and each graphic image information segment provides reproduction information for reproducing one or more 20 graphic images.

In an exemplary embodiment, the reproduction information identifies a palette information segment to use in reproducing

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RECORDING MEDIUM HAVING A DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
GRAPHIC DATA AND RECORDING AND REPRODUCING METHODS AND  
APPARATUSES

## Fulltext Availability:

Detailed Description  
Claims

## English Abstract

The recording medium includes a graphic information area having at  
least one graphic image information segment and at least one  
palette information segment recorded therein. Each palette information  
segment provides color information. Each graphic image information  
segment provides reproduction information for reproducing one or more  
graphic images.

## Detailed Description

## DESCRIPTION

RECORDING MEDIUM HAVING A DATA STRUCTURE FOR  
MANAGING REPRODUCTION OF GRAPHIC DATA AND  
RECORDING AND REPRODUCING METHODS AND APPARATUSES

## 5 1, TECHNICAL FIELD

The present invention relates to a method of managing  
graphic data for a high-density recording medium such as an  
optical disk (e.g., a Blu-ray Disc ROM (BD-ROM)).

## 2. BACKGROUND ART

Recording media such as optical disks capable of  
recording large amounts of high-quality digital video/audio  
data, for example, DVDs (digital...

...the market. The types of DVDs

include DVD-Video, DVD-VR (Video Recording), DVD-Audio, and  
15 DVD-AR (Audio Recording).

In the DVD-Video, graphic data to be reproduced in

## 5, MODES FOR CARRYING OUT THE INVENTION

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM), 13D-RE, etc. in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown...

...to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the data...

...to demultiplex, and instructs the source depacketizer 4 on the source packet format. When multiple audio streams are recorded in a data area of the BD-ROM, the controller 10 checks the characteristic 5 audio packet ID (audio-PID) recorded in each audio packet.

Next, audio packets having audio packet IDs corresponding...

...a data structure for managing multiple audio streams recorded on a high-density recording medium (e.g., a high-density optical disk such as a BD-ROM).

As apparent from the above description, the present invention provides methods and apparatuses for recording a data structure on a high density recording medium for...

## Claim

... and the packets of a same audio stream having a same packet identifier.

22 An apparatus for recording a data structure for managing reproduction of graphic data on a recording medium, comprising: a driver for driving an optical recording device to record 20 data on the recording medium; an encoder for...

16/3,K/12 (Item 12 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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RECORDING MEDIUM HAVING A DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
GRAPHIC DATA AND RECORDING AND REPRODUCING METHODS AND  
APPARATUSES

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01113975      \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE AUDIO STREAMS RECORDED THEREON AND RECORDING AND REPRODUCING  
METHODS AND APPARATUSES

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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
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SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
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(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
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Fulltext Availability:

Detailed Description  
Claims

Detailed Description

... play of an arbitrary audio stream requested by  
the user.

Recently,, standardization of high-density optical discs such  
as a read-only Blu-ray disc (BD-ROM) , which has a higher  
recording  
capacity than a DVD, is underway. However, an appropriate method  
20 for managing multiple audio streams for the high-density...

...graphically illustrates a program

inf ormation f ield of a clip inf ormation f ile and an associated A/V  
20 clip recorded in a BD-ROM according to an embodiment of  
the present  
invention; and

FIG. 11 is a diagram illustrating the structure of an optical  
disc apparatus where the present invention is applied.



each graphics stream in the associated segment.

22 A recording medium having a data structure for managing  
30 reproduction of multiple graphics streams, comprising:  
a data area having at least one graphics information packet  
stored therein, the graphics information packet including  
management information for managing reproduction of multiple  
15

graphics streams recorded as packets along with the graphics  
information packet.

23 A method of reproducing a data structure for managing  
reproduction of multiple graphics streams from a recording medium,  
5 comprising:  
reproducing at least multiple graphics streams from a portion  
of the recording medium in which the multiple graphics streams are  
multiplexed, each graphics stream being a transport stream and  
stored as one or more packets, each packet having a packet  
identifier, and the packets of a same graphics stream having a same  
packet identifier.

24 An apparatus for reproducing a data structure for  
managing reproduction of multiple graphics streams from a  
recording medium, comprising:  
a driver for driving an optical reproducing device to  
reproduce data recorded on the recording medium;  
a controller for controlling the driver to reproduce at least  
multiple graphics streams from a portion of the recording medium  
in which the multiple graphics streams are multiplexed, each  
graphics stream being a transport stream and stored as one or more  
packets, each packet having a packet identifier, and the packets  
of a same graphics stream having a same packet identifier.

25 A method of recording a data structure for managing  
reproduction of multiple graphics streams on a recording medium,  
25 comprising:  
recording at least multiple graphics streams in a portion of  
the recording medium such that the multiple graphics streams are  
multiplexed, each graphics stream being a transport stream and  
recorded as one or more packets, each packet having a packet  
30 identifier, and the packets of a same graphics stream having a  
same  
packet identifier.

26 An apparatus for recording a data structure for managing  
reproduction of graphic data on a recording medium, comprising:  
16  
a driver for driving an optical recording device to record  
data on the recording medium;  
an encoder for encoding at least multiple reproduction path  
video data; and  
a controller for controlling the driver to record at least  
multiple graphics streams in a portion of the recording medium such  
that the multiple graphics streams are multiplexed, each  
graphics  
stream being a transport stream and recorded as one or more packets,  
each packet having a packet identifier, and the packets of a same  
10 graphics stream having a same packet identifier.

17

10 streams as transport packets, and each transport packet in a same graphics stream having a same packet identifier; and  
a clip information file area of the recording medium having  
at least one clip information file stored therein, the clip  
information file including management information for reproducing  
15 the multiple graphics streams recorded on the recording medium,  
the management information identifying each of the multiple  
graphics streams based on the associated packet identifier.

12 The recording medium of claim 11, wherein in at least a  
portion of the data area, transport packets for the multiple  
20 graphics streams are multiplexed.

13 The recording medium of claim 11, wherein  
the management information identifies a coding format for  
each of the multiple graphics streams.

14 The recording medium of claim 11, wherein  
the management information includes display information for  
each of the multiple graphics streams.

15 The recording medium of claim 11, wherein the clip  
information file includes at least one program information field,  
the program information field including the management information  
30 for one or more program sequences, each program sequence associated  
with a different segment of at least a graphics presentation.

16 A recording medium having a data structure for managing  
reproduction of multiple graphics streams, comprising:

14  
a management area having at least one program information  
field stored therein; each program information field including one  
or more program sequences, each program sequence associated with  
a different segment of at least a graphics presentation and  
including management information for managing reproduction of at  
least one graphics stream in the associated segment, and at least  
one program sequence including management information for multiple  
graphics streams in the associated segment.

17 The recording medium of claim 16, wherein  
the management information of each program sequence  
identifies each graphics stream in the associated segment.

18 The recording medium of claim 17, wherein  
a data area of the recording medium stores each graphics  
stream as transport packets, and each transport packet in a same  
15 graphics stream has a same packet identifier; and  
the management information identifies each graphics stream  
based on the associated packet identifier.

19 The recording medium of claim 17, wherein at least a  
portion of the data area stores a segment having multiple graphics  
20 streams associated therewith, and the transport packets for the  
associated multiple graphics streams are multiplexed in the  
portion of the data area.

20 The recording medium of claim 17, wherein  
the management information identifies a coding format for  
25 each graphics stream in the associated segment.

21 The recording medium of claim 17, wherein  
the management information provides display information for

streams recorded on the recording medium.

The above description further provides methods and apparatus for reproducing multiple graphics streams recorded on a high density recording medium based on a data structure, also recorded on the high density recording medium, for managing the reproduction of the multiple graphics streams.

While the invention has been disclosed with respect to a limited number of embodiments, those skilled in the art, having the benefit of this...

#### Claim

1 A recording medium having a data structure for managing reproduction of multiple graphics streams, comprising:  
a data area storing at least multiple graphics streams in at least one portion thereof, the multiple graphics streams being multiplexed, each graphics stream being a transport stream and stored as one or more packets, each packet having a packet identifier, and the packets of a same graphics stream having a same packet identifier.

2 The recording medium of claim 1, wherein at least one of the multiple graphics streams is a subtitle stream.

3 The recording medium of claim 1, further comprising:  
a management area including management information for managing reproduction of the multiple graphics streams.

4 The recording medium of claim 3, wherein the management information includes the packet identifier for each of the multiple graphics streams.

5 The recording medium of claim 4, wherein the management information includes coding format information for each of the multiple graphics streams.

6 The recording medium of claim 4, wherein the management information includes display information for each of the multiple graphics streams.

7 The recording medium of claim 3, wherein  
a program information field includes the management information for managing reproduction of the multiple graphics streams.

8 The recording medium of claim 7, wherein  
a clip information file includes the program information field.

9 The recording medium of claim 3, wherein  
13

a clip information file stored in the management area includes the management information for managing reproduction of the multiple graphics streams.

10 The recording medium of claim 3, wherein a graphics stream information packet recorded with the packets of the multiple graphics streams includes the management information.

11 A recording medium having a data structure for managing reproduction of multiple graphics streams, comprising:  
a data area of the recording medium storing multiple graphics

9

Fig. 7 illustrates a schematic diagram of an embodiment of an optical disk recording and reproducing apparatus according to the present invention. As shown, an AV encoder 9 receives and encodes data (e.g., movie video, audio, graphics, etc.). The AV Encoder 9 outputs the encoded data along with coding information and stream attribute information. A multiplexer 8 multiplexes the encoded data based...

...30 to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the

10

controller 10 controls the drive 3 to reproduce the data...

...perform,

instructs the demultiplexer 5 on the transport stream to 15 demultiplex, and instructs the source depacketizer 4 on the source packet format.

When multiple graphics streams are recorded in a data area of the BD-ROM, the controller 10 checks the characteristic packet

ID (graphics-PID) recorded in each graphics packet.

Next, graphics packets having packet IDs corresponding to a graphics stream selected by a user via the user interface (e.g., subtitle of a particular language) are routed to the AV decoder 6 by the demultiplexer 5 under the control of the controller 10.

The controller 10 also searches for and checks the 25 corresponding graphics coding information (graphicsCodingInfo) and graphic display information (graphicsDisplayInfo) in the program information field or graphics information packet and instructs the decoder 6 to perform decoding and display operations according to the coding format and display information designated 30 by the graphics coding and display information. For example with reference to Fig. 6, if the first graphics stream is a subtitle data for the English language and this subtitle stream is selected for display by the user, the optical disk recording and reproducing

11

apparatus reproduces source packets #2, #41 #7, etc., having transport packets with a graphics PID value of 'A', which corresponds to the selected graphics stream.

While Fig. 7 has been described as a recording and reproducing 5 apparatus, it will be understood that only a recording or only a...  
...reproducing function.

As will be appreciated from the forgoing disclosure, the present invention provides a recording medium having a data 10 structure for managing multiple graphics streams recorded on a high-density recording medium (e.g., a high-density optical disk such as a BD-ROM).

As apparent from the above description, the present invention provides methods and apparatuses for recording a data structure 15 on a high density recording medium for managing multiple graphics

packet...

...indicates the value of the PID of the transport packets that shall 25 contain the program map section applicable for the ith program sequence. The graphic-PID[i][stream-index] field indicates the PID value of each graphic stream in the ith program sequence. The graphicCodingInfo(i,stream-index) field indicates the coding format or method of coding each graphics stream in the ith program 30 sequence. The graphicsDisplayInfo(i, stream-index) field indicates various display information for each graphics stream in the ith program sequence. For example, the display information may include display start and end information, display position 8 information about the corresponding graphics data, size information, etc.

The graphics

PID field may be used in several different ways.

As discussed above, graphics stream may be a subtitle, menu, image, 5 etc. Each graphics stream may be differentiated from another using, the graphics PID value. Namely, according to the present invention, the transport packets of a graphics stream have a same graphics PID, and different graphics streams have different graphics PIDs.

Fig. 6 illustrates a graphical representation of an A/V 10 stream including multiple graphics streams structured and managed according to an embodiment of the present invention. As shown, transport packets for multiple graphics streams are divided into groups and the groups are multiplexed with groups of the other A/V stream transport packets (e.g., video and/or audio transport 15 packets). Within a group of graphic stream packets, the packets for different graphics streams are multiplexed. As shown, each graphics stream includes transport packets having a same graphics-PID, and the different graphics streams have different graphics-PIDs. Specifically, Fig. 6 shows the source packets, but 20 as discussed above, a source packet is comprised of a header and a transport packet.

Fig. 6 shows first - third graphic streams #1 - #3 in a group. The transport packets of the first graphics stream #1 each have a graphic PID value of 'A1, the transport packets of the second 25 graphics stream #2 each have a graphic-PID value of 'BI, and the transport packets of the third graphics stream #3 each have a graphic-PID value of 'IC'.

Fig. 6 further shows that in one exemplary embodiment, a group of graphic stream packets begins with a graphics information 30 packet. The graphics information packet may include the same graphics coding and display information supplied by the program information field regarding the graphics streams in the associated group of graphic stream packets.

embodiment of the present invention;

Fig. 6 illustrates a graphical representation of an A/V stream including multiple graphics streams structured and managed according to an embodiment of the present invention; and FIG. 7 is a diagram illustrating the structure of an optical disc apparatus where the present invention is applied.

#### 5, MODES FOR CARRYING OUT THE INVENTION

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM), DD-RE, etc. in accordance with the invention may have

25 a file or data structure for managing reproduction of video and audio data as...

...the same way a book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM and BD-RE optical disks, different titles, various versions of a title or portions of a title may be recorded, and therefore...

...director's commentary, audio coding formats, etc.) provide different audio streams for reproduction. Optical disks of high density also provide the opportunity to have multiple graphic or sub-picture streams recorded thereon and reproduced therefrom.

Graphics streams include subtitles, menus, images, etc. For example, subtitles of different languages may be recorded as different graphic streams. Typically, a graphics stream is 30 reproduced along with associated video and/or audio data and, for example, overlaid on the associated video.

The data structure for managing reproduction of multiple graphics streams for a high-density optical disk in accordance

7 with embodiments of the present invention will be described along with methods and apparatuses according to embodiments of the present invention for recording and reproducing multiple graphics streams-

As discussed above, the CLIPINF directory includes a clip information file associated with each A/V stream file, and a clip information file includes...

...number-of program-sequences field.

As discussed above, a program sequence is associated with a segment 15 of, for example, a video, audio and/or graphics presentation.

For each program sequence i, the program information field provides at least the fields of: SPN  
program-sequence-start[i],  
program-map  
PID[i], graphics-PID[i][stream-index],  
graphicsCodingInfo(i, stream-index), and graphicsDisplayInfo(i,  
20 stream-index).

The SPN-Program-sequence-start[i] field indicates a source

Recently, standardization of high-density optical discs such as a read-only Blu-ray disc (BD-ROM), which has a higher recording capacity than a DVD, is underway. However, an appropriate method for managing multiple graphics streams for the high-density 20 optical disc has not been established.

### 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of at least multiple graphics streams recorded on the recording medium.

In one exemplary embodiment, a data area of the recording medium stores at least multiple graphics streams in at least one portion thereof, the multiple graphics streams being multiplexed.

Each graphics stream is a transport stream and stored as one or more packets. Each packet has a packet identifier, and the packets 30 of a same graphics stream have a same packet identifier. In one exemplary embodiment, at least one of the multiple graphics streams is a subtitle stream.

2

According to another exemplary embodiment of the present invention, the recording medium includes a clip information file area having at least one clip information file stored therein. The clip information file includes management information for 5reproducing multiple graphics streams recorded on the recording medium. For example, the multiple graphics streams are recorded as transport packets, and each transport packet in a same graphics stream has a same packet identifier. The management information identifies each of the multiple graphics streams based on the 10 associated packet identifier. As further examples, the management information indicates the coding and display information for each graphics stream.

According to another exemplary embodiment of the present invention, the recording medium includes a management area having 15 at least one program information field...

...Each program

information field includes one or more program sequences. Each program sequence is associated with a different segment of at least a graphics presentation and includes management information for managing reproduction of at least one graphics stream in the 20 associated segment. At least one of the program sequences includes management information for multiple graphics streams in the associated segment.

In a further exemplary embodiment, a data area of the recording medium has at least one graphics information packet 25 stored therein. The graphics information packet includes management information for managing reproduction of multiple graphics streams recorded as packets along with the graphics information packet.

The present invention further provides apparatuses and 30 methods for recording and reproducing the data structure according to the present invention, and recording...

...the structure of a program

15 information field recorded on an optical disc according to an

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LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI  
SK TR  
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RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE GRAPHICS STREAMS RECORDED THEREON AND RECORDING AND  
REPRODUCING METHODS AND APPARATUSES

## Fulltext Availability:

Detailed Description  
Claims

## English Abstract

The recording medium includes a data area storing at least multiple graphics streams in at least one portion thereof. The multiple graphics streams are multiplexed, and each graphics stream is a transport stream stored as one or more packets. Each packet has a packet identifier, and the packets of the same graphics stream have the same packet identifier.

## Detailed Description

## DESCRIPTION

I

RECORDING MEDIUM HAVING DATA STRUCTURE FOR  
MANAGING REPRODUCTION OF MULTIPLE GRAPHICS STREAMS  
RECORDED THEREON AND RECORDING AND REPRODUCING  
METHODS AND APPARATUSES

## 1, TECHNICAL FIELD

The present invention relates to a recording medium having  
a data structure for managing reproduction of at least multiple  
graphics streams recorded thereon as well as methods and  
10 apparatuses for reproduction and recording.

## 2, BACKGROUND ART

An optical disc such as a DVD (Digital...

...the

15 subtitle data together with the main video frame.



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AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
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SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

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## Fulltext Availability:

Detailed Description

Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective

data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention includes path management information for managing the reproduction 20...to reproduce this data structure. Based on the information 30 contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the 5path management or change information reproduced from the optical disk, the controller...

16/3,K/10 (Item 10 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01113976 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE GRAPHICS STREAMS RECORDED THEREON AND RECORDING AND  
REPRODUCING METHODS AND APPARATUSES

## Patent Applicant/Assignee:

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## Inventor(s):

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...understood,  
exemplary embodiments thereof will now be described with reference  
to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM  
(BD-ROM),, BD-RE, etc. in accordance with the invention may  
have  
a file or data structure for managing reproduction of video and  
audio data as shown...

...the same way a  
book is often organized into chapters.

Because of the large storage capacity of the newer,  
high-density recording media such as BD-ROM and BD-RE optical  
disks,  
different titles, various versions of a title or portions of a title  
may be recorded, and therefore...

...3  
to reproduce this data structure. Based on the information  
contained therein, as well as user input received over the user  
interface (e.g. . control buttons on the recording and reproducing  
apparatus or a remote associated with the apparatus), the  
controller 10 controls the drive 3 to reproduce the audio...

...optical disk. For example, the user input  
may specify a path to reproduce. This user input may be specified,  
for example, via a menu based graphical user interface  
preprogrammed into the controller 10. Using the user input and the  
path management or change information reproduced from the optical  
disk, the...

16/3,K/9 (Item 9 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01122036 \*\*Image available\*\*  
RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE REPRODUCTION PATH VIDEO DATA RECORDED THEREON AND RECORDING  
AND REPRODUCING METHODS AND APPARATUSES

Patent Applicant/Assignee:

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Legal Representative:

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Kangnam-gu, Seoul 135-272, KR,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200444904 A1 20040527 (WO 0444904)  
Application: WO 2003KR1688 20030821 (PCT/WO KR03001688)  
Priority Application: KR 1020020069937 20021112

16/3,K/8 (Item 8 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01122049 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE REPRODUCTION PATH VIDEO DATA RECORDED THEREON AND RECORDING  
AND REPRODUCING METHODS AND APPARATUSES

Patent Applicant/Assignee:

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Dongan-gu, 431-075 Anyang, Kyunggi-do, KR,  
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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200444913 A1 20040527 (WO 0444913)  
Application: WO 2003KR2382 20031107 (PCT/WO KR03002382)  
Priority Application: KR 1020020069937 20021112; KR 1020020072516  
20021120

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI  
SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 6496

Fulltext Availability:

Detailed Description

Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective

data structure for managing reproduction of video and audio data  
15 recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

3. DISCLOSURE OF INVENTION

The recording medium according to the present invention  
includes a data structure for managing reproduction of at...

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 6911

Fulltext Availability:

Detailed Description

Detailed Description

... f ective

data structure for managing reproduction of video and audio data  
15 recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

### 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention  
includes path management information for managing the reproduction  
20...

...understood,

preferred embodiments thereof will now be described with reference  
to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM  
(BD-ROM), BD-RE, etc. in accordance with the invention may  
have

a file or data structure for managing reproduction of video and  
audio data as shown...

...the same way a

book is often organized into chapters.

Because of the large storage capacity of the newer,  
high-density recording media such as BD-ROM and BD-RE optical  
disks,

30 dif f erent titles, various versions of a title or portions of a title  
may be recorded, and theref...

...3

to reproduce this data structure. Based on the information  
contained therein, as well as user input received over the user  
interface (e.g., control buttons on the recording and reproducing  
20 apparatus or a remote associated with the apparatus), the  
controller 10 controls the drive 3 to reproduce the audio...

...optical disk. For example, the user input

may specify a path to reproduce. This user input may be specified,  
for example, via a menu based graphical user interface

25 preprogrammed into the controller 10. Using the user input and the  
path management information reproduced from the optical disk, the  
controller 10...

Fig. 15 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths include different parental control...

...path item from being acted upon by the reproducing apparatus; and thus, prevent the fourth playlist 'PlayList 4' from being reproduced.

Fig. 16 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when a main reproduction path includes a side path...

...first path item branches to the third path item. Otherwise, the first path item branches to is the second path item.

Fig. 17 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths include different camera angles...

...7 operates in the same manner as was described above in recording the data structures of Figs. 9-17 on the recording medium (e.g., BD-ROM).

Reproduction

5 by the recording and reproducing apparatus of Fig. 7 is also substantially the same, except that the playlist linkers are reproduced, and the...

**16/3,K/7 (Item 7 from file: 349)**

DIALOG(R) File 349:PCT FULLTEXT

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01124486 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF INTERLEAVED MULTIPLE REPRODUCTION PATH VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES

Patent Applicant/Assignee:

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UM Soung Hyun, 18-701, Samho Apt., Bisan-dong, Dongan-gu, Anyang, Kyunggi-do 431-050, KR,

Legal Representative:

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Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR1687 20030821 (PCT/WO KR03001687)

Priority Application: KR 1020020072515 20021120

Designated States:

apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10 controls...

...data structure according to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...2, and 3 respectively are recorded in the AV stream area within the physical data recording area of 3 0 the recording medium (e.g. . BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

The TPs for multiple reproduction paths...

...control of the 5 single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information is...as part of the reproduction process.

Branching and other navigation of path items will be described in 30 greater detail below.

Figs. 13-17 illustrate graphical representations of different methods of structuring navigation control using the data structure of Fig. 12. As explained before, a multiple reproduction 20 path data stream recorded in the AV stream area off for example, a BD-ROM may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files, which may be...

...The fourth path item includes pre-navigation commands and a playlist file name instructing playback of the fourth playlist 'PlayList 4'.

Fig. 14 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths 30 include different languages...

...and third path items include post-navigation commands instructing that the reproduction path proceed to the same path item (not shown).

## Detailed Description

## Detailed Description

... 10 the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks such as the Blu-ray ROM (BD-ROM) is still under way. An effective data structure for managing reproduction of video and audio data recorded on the high-density read-only optical disk such as a 15 BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of at...

...present

invention in greater detail;

Fig. 12 illustrates an exemplary embodiment of a format for the navigation file 'Playlist-Linker1; and

Figs. 13-17 illustrate graphical representations of 15 different methods of structuring navigation control using the data structure of Fig. 12.

## 5, MODES FOR CARRYING OUT THE INVENTION...

...with reference

20 to the accompanying drawings.

A high-density recording medium such as a high density optical disk (e.g., a Blu-Ray ROM (BD-ROM), BD-RE, etc.) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown...

...the same way a

book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM and BD-RE optical disks,

different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced...

...parental-level, or a multi-angle data stream

recorded as a title in a physical data recording area of a recording medium (e.g., a BD-ROM) may be managed as a plurality

of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...corresponding to paths

1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in

an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...3

to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing

a side path...

...the first path item branches to  
the third path item. otherwise, the first path item branches to  
the second path item.

Fig. 17 illustrates a graphical representation of an  
10 exemplary embodiment for structuring navigation control using the  
data structure of Fig. 12 when the multiple reproduction paths  
include different camera...

...operates in the  
same manner as was described above in recording the data structures  
30 of Figs. 9-17 on the recording medium (e.g. , BD-ROM) .  
Reproduction  
by the recording and reproducing apparatus of Fig. 7 is also  
substantially the same, except that the playlist linkers are  
reproduced, and the navigation...

16/3,K/6 (Item 6 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01124507 \*\*Image available\*\*  
RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF AT  
LEAST VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS  
AND APPARATUSES

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Bundang-gu, 463-010 Sungnam, Kyunggi-do, KR,

Legal Representative:

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Kangnam-gu, Seoul 135-272, KR,

Patent and Priority Information (Country, Number, Date):

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Application: WO 2003KR2487 20031119 (PCT/WO KR03002487)  
Priority Application: KR 1020020072518 20021120

Designated States:

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prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU  
SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

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Fulltext Word Count: 11277

Fulltext Availability:



may

be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and the...

...Paths 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of the recording medium (e.g., BD-ROM) in an interleaved manner.

As

mentioned before, the different paths may, in one exemplary 25 embodiment be different camera angles.

The TPs for multiple reproduction...

...playback control of the single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded in a clip information file corresponding to the clip files, as 16 depicted in FIG. 8.

For example,, the path management information...provided as part of the reproduction process.

Branching and other navigation of path items will be described in greater detail below.

Figs. 13-17 illustrate graphical representations of 25 different methods of structuring navigation control using the data structure of Fig. 12. As explained before, a multiple reproduction path data stream recorded in the AV stream area of, for example, a BD-ROM may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files, 30 which may...

...The fourth path item includes pre-navigation commands and a playlist file name instructing playback of the fourth playlist 'PlayList 4'.

Fig. 14 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths include different languages. As...

...third path items include post-navigation 10 commands instructing that the reproduction path proceed to the same path item (not shown).

Fig. 15 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths include different parental control...

...path item from being acted upon by the reproducing apparatus; and thus, prevent the fourth playlist 'PlayList 4' from being reproduced.

Fig. 16 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when a main reproduction path includes

The recording medium according to the present invention includes a data structure for managing reproduction of at...

...invention in greater detail;  
 s Fig. 12 illustrates an exemplary embodiment of a format for the navigation file 'Playlist-Linker1; and  
 Figs. 13-17 illustrate graphical representations of different methods of structuring navigation control using the data structure of Fig. 12.

#### 10 5. MODES FOR CARRYING OUT THE INVENTION...

...with reference  
 to the accompanying drawings.

A high-density recording medium such as a high density is optical disk (e.g., a Blu-Ray ROM (BD-ROM), BD-RE, etc.) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown...

...the same way a  
 book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM and DD-RE optical disks,,  
 20 different titles, various versions of a title or portions of a title may be recorded, and therefore...

...level, or a multi-angle data stream recorded as a title in a physical data recording area of a recording medium (e. g - r a BD-ROM) may be managed as a plurality of clip files. For exemplar clip files 1-3 shown in FIG. 4A correspond to a title and the...

...to paths  
 2 51, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area Of r for exemplar the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blockSr each of which contains at...

...to reproduce this data structure. Based on the information  
 14 contained therein, as well as user input received over the user interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...optical disk. For example, the user input may specify a path to reproduce. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10 controls...

...data structure according to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM

reproduced, and the navigation...

**16/3,K/5 (Item 5 from file: 349)**

DIALOG(R) File 349:PCT FULLTEXT

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01124508      \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF AT  
LEAST VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS  
AND APPARATUSES

**Patent Applicant/Assignee:**

LG ELECTRONICS INC, 20, Yoido-dong, Youngdungpo-gu, 150-010 Seoul, KR, KR  
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KIM Byung Jin, 111-204, Hansol Chungu APT., 110, Jeongja-dong,  
Bundang-gu, 463-010 Sungnam, Kyunggi-do, KR,

**Legal Representative:**

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Kangnam-gu, Seoul 135-272, KR,

**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200447101 A1 20040603 (WO 0447101)  
Application: WO 2003KR2488 20031119 (PCT/WO KR03002488)  
Priority Application: KR 1020020072518 20021120

**Designated States:**

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM  
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU  
SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 11629

**Fulltext Availability:**

Detailed Description

**Detailed Description**

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective  
data structure for managing reproduction of video and audio data  
recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

3, DISCLOSURE OF INVENTION

in a clip information file corresponding to the clip files, as depicted in FIG. 8.

For example, the path management information...

...provided as part of the reproduction process.

Branching and other navigation of path items will be described in greater detail below.

Figs. 13-17 illustrate graphical representations of 15 different methods of structuring navigation control using the data structure of Fig. 12. As explained before, a multiple reproduction path data stream recorded in the AV stream area of, for example, a BD-ROM may be managed as a plurality of clip files. The plurality of clip files are associated with a plurality of playlist files, 20 which may...

...The fourth path item includes pre-navigation commands and a playlist file name instructing playback of the fourth playlist 'PlayList 4'.

Fig. 14 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths include different languages. As...

...third path items include post-navigation commands instructing that the reproduction path proceed to the same 24 path item (not shown).

Fig. 15 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when the multiple reproduction paths 5 include different parental...

...path item from being acted upon by the reproducing apparatus; and thus, prevent the fourth playlist 'PlayList 4' from being reproduced.

Fig. 16 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the data structure of Fig. 12 when a main reproduction path includes a side path...

...first path item branches to 30 the third path item. Otherwise, the first path item branches to the second path item.

Fig. 17 illustrates a graphical representation of an exemplary embodiment for structuring navigation control using the 29 data structure of Fig. 12 when the multiple reproduction paths include different camera...

...operates in the same manner as was described above in recording the data structures 20 of Figs. 9-17 on the recording medium (e.g., BD-ROM).  
Reproduction by the recording and reproducing apparatus of Fig. 7 is also substantially the same, except that the playlist linkers are

7

, MODES FOR CARRYING OUT THE INVENTION

In...

...described with reference  
to the accompanying drawings.

A high-density recording medium such as a high density optical disk (e.g., a Blu-Ray ROM (BD-ROM), BD-RE, etc.) in accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown...

...level, or a multi-angle data stream

11

recorded as a title in a physical data recording area of a recording medium (e.g., a BD-ROM) may be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 4A correspond to a title and the...

...to paths

15 1, 2, and 3 respectively are recorded in the AV stream area within the physical data recording area of, for example, the BD-ROM in an interleaved manner. The TPs for the multiple reproduction paths are interleaved on a PID basis as interleave blocks, each of which contains at...

...reproduce this data structure. Based on the information contained therein, as well as user input received over the user 25 interface (e.g., control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...disk. For example, the user input may specify a path to reproduce. This user input may be specified, 30 for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management information reproduced from the optical disk, the controller 10 controls...

...data structure according

to Fig. 2. As explained before, a multi-path data stream recorded in a physical data recording area, for example, of the BD-ROM may

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be managed as a plurality of clip files. For example, clip files 1-3 shown in FIG. 8 correspond to a title and...

...Paths 1, 2, and 3 respectively are recorded

in the AV stream area within the physical data recording area of the recording medium (e.g., BD-ROM) in an interleaved manner. As mentioned before, the different paths may, in one exemplary embodiment be different camera angles.

The TPs for multiple reproduction... playback control of the single-path and multi-path A/V streams recorded as a single title in the physical data recording area of the BD-ROM may be recorded

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 SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
 (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
 SI SK TR  
 (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
 (AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
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Detailed Description

## Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
 such as the Blu-ray ROM (BD-ROM) is still under way. An  
 effective  
 data structure for managing reproduction of video and audio data  
 recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention  
 includes a data structure for managing reproduction of at...

...present

invention in greater detail;

Fig. 12 illustrates an exemplary embodiment of a format for  
 the navigation file 'PlayList-Linker1; and

Figs. 13-17 illustrate graphical representations of  
 different methods of structuring navigation control using the data  
 structure of Fig. 12.

etc. in

accordance with the invention may have a file or data structure for managing reproduction of video and audio data as shown...

...same way a

10 book is often organized into chapters.

Because of the large storage capacity of the newer,

high-density recording media such as BD-ROM and BD-RE optical disks,

different titles, various versions of a title or portions of a title may be recorded, and therefore, reproduced...

...reproduction path video data.

As alluded to above, the data recorded on a high density recording medium such as high density optical disk (e.g. . BD-ROM)

includes multiple component data. Typically video data is the main component data, with the other component data being characterized

as auxiliary component data - The auxiliary component data may be audio data, graphic data (e.g. , subtitle data, graphics, etc.)

The embodiments of the present invention further consider enhanced data as auxiliary component data. Enhanced data includes newer forms of data such as...

...first, second and third clip files Clip Files #1, #2, #3

are recorded in a data recording area of the recording medium (e.g. , a BD-ROM) without interleaving. For example, as shown in FIG.

41

2 5 the data in each of the first-third clip files Clip Files #1, #2...

...3

to reproduce this data structure. Based on the information contained therein, as well as user input received over the user interface (e.g. , control buttons on the recording and reproducing apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video source packets from the optical disk. This user input may be specified, for example, via a menu based graphical user interface preprogrammed into the controller 10.

Based on the data structure of the optical disk, the controller 10 controls the reproduction; namely, jumping between...

16/3,K/4 (Item 4 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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01124509 \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF AT LEAST VIDEO DATA RECORDED THEREON AND RECORDING AND REPRODUCING METHODS AND APPARATUSES

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Inventor(s):

01124519      \*\*Image available\*\*

RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE COMPONENT DATA RECORDED THEREON AND RECORDING AND REPRODUCING  
METHODS AND APPARATUSES

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LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU  
SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
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Fulltext Availability:

Detailed Description

Detailed Description

... same clip

file, this replacement can not take place.

The standardization for high-density read-only optical disks  
25 such as the Blu-ray ROM (BD-ROM) is still under way. An ef  
f ective  
data structure for managing multiple component data recorded on  
the high-density read-only optical disk such as a BD-ROM is  
not  
yet available.

3. DISCLOSURE OF INVENTION

The recording medium according to the present invention  
includes a data structure for managing multiple component data...

...described with reference  
to the accompanying drawings.

A high-density recording medium such as a high density  
optical disk, for example, a Blu-Ray ROM (BD-ROM) , BD-RE,



## 3, DISCLOSURE OF INVENTION

The recording medium according to the present invention includes a data structure for managing reproduction of at...

...understood,  
exemplary embodiments thereof will now be described with reference to the accompanying drawings.

A high-density optical disk, for example, a Blu-Ray ROM (BD-ROM), BD-RE, etc. in accordance with the invention may have  
30 a file or data structure for managing reproduction of video and audio data as...

...same way a  
30 book is often organized into chapters.

Because of the large storage capacity of the newer, high-density recording media such as BD-ROM and BD-RE optical disks,  
different titles, various versions of a title or portions of a title  
8  
may be recorded, and therefore...

...the above-described embodiment  
of the present invention.

As shown, an original data stream to be recorded on the  
9  
recording medium (e.g., a BD-ROM) has an order of a common path  
data portion, a first reproduction path data portion, another common path data portion, and a second reproduction path...

...file.

Fig. 5 illustrates an example of this embodiment. As shown, an original data stream to be recorded on the recording medium (e.g., a BD-ROM) has an order of a common path data portion, a first reproduction path data portion, another common path data portion, and a second reproduction path...

...to reproduce this data structure. Based on the information contained therein, as well as user input received over the user  
25 interface (e.g., control buttons on the recording and reproducing  
apparatus or a remote associated with the apparatus), the controller 10 controls the drive 3 to reproduce the audio/video...

...disk. For example, the user input may specify a path to reproduce. This user input may be specified,  
30 for example, via a menu based graphical user interface preprogrammed into the controller 10. Using the user input and the path management or change information reproduced from the optical disk, the controller...

44. The playback device of Claim 23, wherein

the enhanced mode includes...

16/3,K/2 (Item 2 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01126766 \*\*Image available\*\*  
RECORDING MEDIUM HAVING DATA STRUCTURE FOR MANAGING REPRODUCTION OF  
MULTIPLE REPRODUCTION PATH VIDEO DATA RECORDED THEREON AND RECORDING  
AND REPRODUCING METHODS AND APPARATUSES

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UM Soung Hyun, 18-701, Samho Apt., Bisan-dong, Dongan-gu, 431-050 Anyang,  
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LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE  
SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW  
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI  
SK TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
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Fulltext Availability:

Detailed Description

Detailed Description

... to

the present invention, they will not be discussed further.

The standardization for high-density read-only optical disks  
such as the Blu-ray ROM (BD-ROM) is still under way. An  
effective  
data structure for managing reproduction of video and audio data  
15 recorded on the high-density read-only optical disk such as a  
BD-ROM is not yet available.

a movie-mode program includes a button command,

the button command is a command for branching to the enhanced-mode program, and is recorded on the recording medium as a multiplexed stream after being multiplexed with the video data and subtitle data, and

each piece of the subtitle data is image data of a button, and the button command is executed when a confirmation operation is conducted with respect to the image data of the button.

22. The recording medium of Claim 1, wherein

the enhanced mode includes a virtual-machine mode for having a virtual machine execute one or more...

...pausing during the video data playback.

41. The playback device of Claim 35, comprising:

a demultiplexer operable to demultiplex a multiplex stream to obtain a button command, the video data, subtitle data;  
an image decoder operable to decode image data of a button;  
and

a video decoder operable to decode the video data, wherein

a movie-mode program includes the button command,

the button command is a command for branching to the enhanced-mode program, and is recorded on the recording medium as the multiplex stream after being multiplexed...

...the video data and the subtitle data,

each piece of the subtitle data is the image data, and  
the movie-mode corresponding module executes the button command  
when a confirmation operation is conducted with respect to the image data.

42. The playback device of Claim 23, wherein

the enhanced mode is...

...is described in a markup language.

43. The playback device of Claim 42, comprising:

a demultiplexer operable to demultiplex a multiplex stream to obtain a button command, the video data, subtitle data;  
an image decoder operable to decode image data of a button; and  
a video decoder operable to decode the video data, wherein

a movie-mode program includes the button command,

the button command is a command for branching to the enhanced-mode program, and is recorded on the recording medium as the multiplex stream after being multiplexed...

...the video data and the subtitle data,

each piece of the subtitle data is the image data, and  
the movie-mode corresponding module executes the button command  
when a confirmation operation is conducted with respect to the image data.

...F) Note that an example in FIG. 18 of the first embodiment is a mere example of a technique for describing playback controls of the BD-ROM according to the present invention. Other description techniques include directly branching from Navigation Button information in an AV stream to a Java object. FIG. 57 shows an example of a playback control for branching directly from Navigation Button information in an Av stream to a Java object. Describing Navigation Button information so as to perform such branching allows unrestricted descriptions of scene development, such as branching from a scene in which a character appears to...

...a menu (Chapter Menu) for displaying a list of Chapters and MOVIE objects for controlling the behavior of the menu may be recorded on a BD-ROM so that branching from the Top Menu is made possible. In addition, the menu may be called by pushing down a Chapter key on a remote controller.

(H) At recording on a BD-ROM, extension headers preferably are appended to TS packets structuring an AV stream. The extension headers, which are called TP(underscore)extra(underscore)header, include an...

...format.

(M) Although Cell information in the above embodiments specifies a start and end of a playback section using time information, logical addresses on a BD-ROM can be used instead. In addition, CELL in the above embodiments may be called "PlayItem".

(N) TMAP in stream management information may be called "EP...

...stream management information, and PL information may be stored in advance, as with cache memory. Herewith, the time lag until reading this data from the BD-ROM can be shortened. In addition, although BACKUP memory 14 saves the stored values of registers in stack form, when consideration is given to the relationship...

...based (U.S. No. 60/409,999 and No. 60/440,623). In addition, playback control engines 12 in the above embodiments correspond to a BD-ROM-FF processor 3025 and a scenario processor 304 (FIG. 35) disclosed in the specification of the basic application. The module manager 20 corresponds to a...

...CLAIMS or pausing has been instructed during playback of the video data.

19. The recording medium of Claim 13, wherein a movie-mode program includes a button command,

the button command is a command for branching to the enhanced-mode program, and is recorded on the recording medium as a multiplexed stream after being multiplexed with the video data and subtitle data, and

each piece of the subtitle data is image data of a button, and the button command is executed when a confirmation operation is conducted with respect to the image data of the button.

20. The recording medium of Claim 1, wherein

the enhanced mode is a mode for having a browser execute a program, and

an enhanced-mode program is described in a markup language.

21. The recording medium of Claim 20, wherein

The present embodiment relates to BD-ROM production processes. FIG. 56 is a flowchart showing BD-ROM production processes according to an eighth embodiment.

The BD-ROM production processes include a material producing process S101 for creating materials such as video records and audio records, an authoring process S102 for generating an application format with the use of an authoring device, and a pressing process S103 for creating a master BD-ROM and pressing and laminating to complete BD-ROMs.

Of these processes, the authoring process targeting the BD-ROM comprises five processes: a scenario editing process S201; a material encoding process S202; a multiplexing process S203; a formatting process S204; and an emulation process...

...is for converting an outline created in the planning stage into a format comprehensible to a playback device. The scenario editing results are created as BD-ROM scenarios. In addition, multiplexing parameters for realizing multiplexing are also created in the scenario editing.

The material encoding process S202 is an operation for respectively... material encoding, and the result is converted into a single digital stream.

In the formatting process S204, various types of information are created based on BD-ROM-oriented scenarios, and the scenarios and digital stream are adapted to a BD-ROM format.

The emulation process S205 is for confirming whether or not the authoring result is correct.

Since Java objects and WebPage objects can be respectively...the event of branching from a PL to another PL, the module manager 20 retrieves a filename not from the Index Table recorded on a BD-ROM but from the Index Table recorded on the HD, instead. Then, the module manager 20 reads video data having the retrieved filename, and has the...

...present embodiment described above enables a playback device to download an Index Table and replacement videos in the case when certain PLs recorded on a BD-ROM have moral and ethical issues. As a result, it is possible to have a user watch replacement videos, instead of the problematic videos, by causing...

...make indirect referencing via the new Index Table during the playback. Since there is no need to rewrite all the dynamic scenarios recorded on a BD-ROM when partial replacement is desired, the present embodiment is capable of avoiding the risk of recalling the recording medium even when such problems are raised...

...are representative modifications of the present invention.

(A) In all the embodiments above, an optical disk according to the present invention is implemented as a BD-ROM. However, the optical disk of the present invention is characterized by the recorded dynamic scenarios and Index Table, and these characteristics are not dependent on the physical properties of a BD-ROM. Any form of recording media is applicable as long as there exists the capacity to record dynamic scenarios and Index Tables. For example, optical disks...

...in parallel and played as a single video edit.

(B) Although the playback devices in all the embodiments first decode AV streams recorded on a BD-ROM and then output the result to a TV, the playback device may be structured only from a BD-ROM drive, and all of the other elements are equipped on a TV. In this case, the playback device and the TV can be incorporated into...

## 5. Fifth Embodiment

In the first embodiment, application programs in the Java mode describe playback controls targeted for a BD-ROM using programming functions and system variables supplied from the playback control engine. That is, programming functions and system variables supplied from the playback control engine...

...directly used for describing playback controls. On the other hand, applications in the Java mode according to a fifth embodiment describe controls targeted for a BD-ROM via member functions supplied by the Java module 17.

Explanation of the kind of member functions playback controls being described is in reference to FIG. 49. FIG. 49 shows member functions of classes belonging to the Java mode. The Java mode, which is Layer 4, has a BD-ROM only package containing classes of BD-ROMStatus, BD-ROMReproduction, and BD-ROMEvent.

The following gives an account of individual classes in the package. The BD...

...PL playback using a member function of the BD-ROMReproduction class.

According to the present embodiment as described above, since playback controls targeted for a BD-ROM is described via a package in the Java module 17, it is possible to describe the playback controls targeted for a BD-ROM in the same style as general Java language programming style. This allows to enhance production efficiency of software houses that have entered producing movie works.

Note that it is desirable that the package of the present embodiment is issued by an organization in charge of license management of the BD-ROM standardization under the condition that the organization enters into an official contract with software houses developing application programs. The contract includes a prohibition provision of...

...In the first to fifth embodiments, MOVIE objects perform transitions from the MOVIE mode to the Java mode based on branch commands in the Navigation Button information. Here in a sixth embodiment, transitions from the MOVIE mode to the Java mode are performed via a menu. FIG. 51 shows a menu...

...Top Menu is made possible. The Extra Menu, which receives a selection between the Java mode and the Browser mode from a user, includes a button for receiving a transition to the Java mode and a button for receiving a transition to the Browser mode. FIG. 52 shows MOVIE objects and an Index Table according to the sixth embodiment. The figure differs...

...The reason of setting the filtering information is described below. The AV stream includes, in addition to video and audio streams, streams such as Navigation Button information and subtitle streams. The Navigation Button information is necessary for the MOVIE mode, but it is not always the case with the Java and Browser modes. This is because, in the Java mode, CGs can be rendered using the Java language, and there is no need to employ the Navigation Button information. In order to treat the Navigation Button information as invalid in the Java mode, such filtering information is required. However, if the filtering information is set in PL information and the above...

...for sharing of an actual AV stream by setting APP.Flag and filtering information in PL information.

## 8. Eighth Embodiment

menus of the TopMenu, can be selected from the TopMenu. The arrow sw1, sw2, and sw3 in the figure schematically show menu switching by button selection. The TopMenu is a menu having buttons arranged thereon for receiving either an audio selection, a subtitle selection, or a Title selection to perform (buttons sn1, sn2, and sn3 in the figure).

The TitleMenu is a menu having buttons arranged thereon for receiving a selection from movie works (Titles), such as a cinema version, a director's cut version, and a game version. The AudioMenu is a menu having buttons thereon for receiving whether audio playback is to be in Japanese or English, and the SubtitleMenu is a menu having buttons thereon for receiving whether subtitle display is to be in Japanese or English.

FIG. 47 shows MOVIE objects for operating menus having such a hierarchy.

A FirstPlay object (FirstPlay OBJ) is a dynamic scenario describing a startup procedure taken when a BD-ROM is loaded in a playback device. The square boxes depicting the FirstPlay object represent commands for executing the setup procedure. The last command of the...

...square boxes depicting the TopMenu object are schematic representations of individual commands showing the control procedure. These commands include commands for changing a state of buttons in the TopMenu in response to operations from a user, and branch commands for branching in response to confirmation operations made for buttons. The branch commands realize menu switching from the TopMenu to the TitleMenu, from the TopMenu to the SubTitleMenu, and from the TopMenu to the AudioMenu...

...square boxes structuring the AudioMenu object are schematic representations of individual commands showing the control procedure. These commands include commands for changing a state of buttons in the AudioMenu in response to operations from a user, and commands for updating SPRMs used in audio settings in response to confirmation operations made for buttons.

A SubTitleMenu object (SubTitleMenu OBJ) is a dynamic scenario for controlling the behavior of the SubTitleMenu. The square boxes structuring the SubTitleMenu object are schematic representations of individual commands showing the control procedure. These commands include commands for changing a state of buttons in the SubTitleMenu in response to operations from a user, and commands for updating SPRMs used in subtitle setting in response to confirmation operations made for buttons.

A TitleMenu object (TitleMenu OBJ) is a dynamic scenario for controlling the behavior of the TitleMenu. The square boxes structuring the TitleMenu object are schematic representations of individual commands showing the control procedure. These commands include commands for changing a state of buttons in the TitleMenu in response to operations from a user, and branch commands for branching in response to confirmation operations made for buttons. The branch commands realize branching to individual Titles.

These MOVIE objects relating to the menus allow to realize menu behavior such as that realized in...

...described in the first embodiment, these indexes are referred to by dynamic scenarios of any of three modes.

The FirstPlay Index is referred to during BD-ROM startup. The filename of the FirstPlay object is described in this Index.

The TopMenu Index, AudioMenu Index, SubtitleMenu Index, and TitleMenu Index are referred to...

...subtitle switching similar to normal DVDs.

...lblack.png,10,200)); and rendering "2white.png" at the coordinates (330, 200), (Draw(2white.png.330,200)). "lblack.png" is image data of a button in selected state. "2white.png" is image data of a button in normal state. The graphic image ig1 in FIG. 36 is a graphic image rendered by the event handler in the figure. The buttons bn1 and bn2 in the figure are obtained by decoding "lblack.png" and "2white.png", respectively. GPRM(0) indicates which button of these two is in selected state. GPRM(0) being set to "1" means that, of the buttons bn1 and bn2, the button bn1 is set in selected state.

The handler hd2 is a handler for executing function(PlayPL: (-,-,0)) when TimeEvent t2 occurs. TimeEvent t2 is an event that occurs immediately before the...

...image ig2 in FIG. 37 is an image rendered when the condition is true. When the condition of the IF statement is true, the right button bn2 is set in selected state as the image jg2. The graphic image ig1 of FIG. 36 is shown next to the image jp2. The comparison of these images reveals that the event handler switches buttons in selected state according to the UserEvent occurrence.

The ELSE clause in the IF statement involves judging whether or not the condition of SPRM(8) being OK is...

...and images rendered by the event handlers of FIGs. 36 and 37. Since the event handler driven by TimeEvent t1 is a handler for combining buttons with pictures, the image ig1 (including the buttons bn1 and bn2) is combined with respect to the first picture pc1, the middle picture pc2, and the last picture pc3 in the PL, and...

...the PL is played, the first picture data is displayed, as indicated by the arrow py1, after the last picture data is displayed, and the buttons are combined with the first picture data. Unless there is a user operation, display of such combined images is repeated. If a UserEvent occurs as...

...describe a playback procedure in which a single Cell is repeatedly played until a user operation is conducted, and branching is performed according to a button as a result of a user operation.

With the use of such event handlers, controls similar to menu behavior realized in DVDs can be readily...

...to writing in. With a further development of the event handlers, it is possible to realize elaborated menu display where CGs operate in place of buttons, for example. Accordingly, the range of expressions involved with movie productions will be expanded.

Thus concludes the description of the improvement in Java objects according...the screen display with transverse lines in FIG. 44 exaggeratingly depicts the fast-forward PL playback in progress, likened to VTR playback. In an actual BD-ROM fast-forward, such transverse lines do not appear on screen. Here, it is preferable to clear CGs from the screen when the fast-forward is...

...possible to make motion of CGs rendered by Java objects more realistic.

#### 4. Fourth Embodiment

A fourth embodiment relates to improvements in realizing, on a BD-ROM, menu controls similar to those of a DVD. FIG. 46 shows a menu hierarchy realized by a BD-ROM. The menu hierarchy in the figure has a structure where TopMenu is at the highest level, and TitleMenu, SubTitleMenu, and AudioMenu, all of which are subordinate



the BD-ROM on a first-in first-out basis.

The demultiplexer 3 retrieves ACCESS UNITs from the track buffer 2 and demultiplexes these to obtain video and...

...4 while the audio frames are outputted to the audio decoder 6. A subtitle stream is stored in the image memory 7, and the Navigation Button information is stored in the dynamic scenario memory 15. Demultiplexion performed by the demultiplexer 3 includes conversion processing for converting TS packets into PES packets...

...outputs uncompressed-format audio data.

The image memory 7 is a buffer for storing subtitle streams read from BD-ROMs, PNG data in the Navigation Button information, ...and current stream management information. A current PL is a PL currently targeted for processing from among plural pieces of PL information recorded on the BD-ROM. Current stream management information is a piece of the stream management information currently targeted for processing from among plural pieces of the stream management information recorded on the BD-ROM.

The playback control engine 12 executes various functions, such as (1) AV playback function, (2) PlayList playback functions, and (3) status-acquisition/setting functions in...

...Chapter, a number of the currently-being-played PL (PlayList Number), a number of the currently-being-played CELL (PlayItem Number), a number of the button in a selected state (Selected Button), and time information showing the current playback point.

The dynamic scenario memory 15 is a memory storing the current dynamic scenario, and is used for...

...and BROWSER module 18. The current dynamic scenario is the dynamic scenario currently targeted for processing from among the plurality of scenarios recorded on the BD-ROM.

The DVD-like module 16, which is a DVD virtual player that is the main execution body of the MOVIE mode, executes current MOVIE objects...

...and outputs information indicating detected user operations (hereinafter, "UO") to the module manager 20.

The module manager 20 holds an Index Table read from the BD-ROM and performs mode management and branch controls. The mode management performed by the module manager 20 refers to the allocation of modules; namely which of...

...CELLy, and a decoding procedure. This procedure involves: identifying ACCESS UNITv including the In-point video frame of CELLy from TMAP (Step S48); instructing the BD-ROM drive 1 to read ACCESS UNITv (Step S49); instructing the video decoder 4 to decode the video frames included in ACCESS UNITv (Step S52) after...

...table. As a result of the change in branch targets, it is possible to close a path for branching to enhanced-mode programs when the BD-ROM is loaded on core system playback devices not having a Java Virtual Machine and a browser, and thus operation assurance of the recording medium according...

...Java object that executes PL playback and performs various playback controls in synchronization with the PL playback.

FIG. 32 shows a file structure of a BD-ROM according to the second embodiment. What is new in the figure is that YYY.Mark (PLMark) and XXX.Mark (ClipMark) have been added.

PLMarks are...

integrated management.

FIG. 23A shows an internal structure of INFO.BD-ROM. As shown in the figure, INFO.BD-ROM includes an Index Table. The Index Table is an indirect reference table that is referenced when branching from one dynamic scenario to another dynamic scenario...

...does not have an Index in the Index Table.

TITLE#1-#m INDEXES are Indexes for the 1st) to m)th) Titles entered in the BD-ROM. In these Indexes are described the filenames of MOVIE objects that are to be branch destinations when the 1st) to mth) Title numbers are selected...

...a filebody (ZZZ) and an extension (.MOVIE).

The TITLE#m+1-#n INDEXES are Indexes for the m+1th) to nth) Titles entered in the BD-ROM. In these Indexes are described the filenames of WebPage objects/Java objects that are to be branch destinations when the m+1th) to nth) Titles...

...an Index for storing the filename of a MOVIE mode scenario that is executed, instead of an enhanced mode scenario, in the case when the BD-ROM is loaded in a playback device inoperable to execute the enhanced mode, and branching to the enhanced mode is instructed by the playback device.

Here...

...playback device in which program execution using a Java virtual machine and a browser is possible is called a full system. Indirect referencing of a BD-ROM by a core system and a full system is described below with reference to FIGs. 24A-24B. Here, the description of indirect referencing assumes a BD-ROM on which a plurality of dynamic scenarios is recorded (001.MOVIE, 002.MOVIE, 003.MOVIE, ..., 001.CLASS, 002.CLASS, 003.CLASS, ...), as shown in FIG. 24A. FIG. 24B shows an exemplified description of an Index Table when the plurality of dynamic scenarios shown in FIG. 24A is described in the BD-ROM. In the exemplified description shown in FIG. 24B, the filenames of the MOVIE mode scenarios (001.MOVIE, 002.MOVIE, 003.MOVIE, ...) are described in Title...

...find which file to read as the Java object by referring to this Index.

FIG. 27 shows what kind of branching is performed when a BD-ROM having the scenarios, shown in FIG. 18, recorded thereon is loaded in a core system playback device. Depicting the arrows in FIG. 18 using the...

...object which is executed when branching to MOVIE object 0 is performed. Because a user can implement a game in the MOVIE mode when the BD-ROM is loaded in a core-system playback device, it is possible to avoid causing the user disappointment about Java/Browser modes not being implemented.

Thus...

...FIG. 28 shows an internal structure of the playback device according to the present invention. As shown in the figure, the playback device comprises: a BD-ROM drive 1; a track buffer 2; a demultiplexer 3; a video decoder 4; a picture plane 5; an audio decoder 6; an image memory 7...

...a BROWSER module 18; a UO controller 19; a module manager 20; a dispatcher 21; a rendering engine 22 and a communication unit 23.

The BD-ROM drive 1 performs loading/ejecting of a BD-ROM, and accesses the loaded BD-ROM.

The track buffer 2 is a FIFO memory that stores ACCESS UNITS read from

are uniquely identified with the identification number "ZZZ". Expressing the identification number of the scenarios as "ZZZ" shows...



...CG rendering and website accesses, can be preferably described in the Java language and HTML, respectively. Any other processing, i.e. playback controls of the BD-ROM, can be described using programming functions supplied from Layer 3 (static scenarios).

The following description relates to functions supplied from Layer 3 (static scenarios).

(a...

...of CELL currently targeted for playback

SPRM(8) : time information showing current playback point

SPRM(9) : count value of navigation timer

SPRM(10) : number of button currently in selected state

SPRM(11)-(12) : Reserved

SPRM(13) : setting of parental level by user

SPRM(14) : setting related to image playback of playback device

SPRM(15) : setting...

...Reserved

(SPRM(1) and SPRM(2))

SPRM (1) and SPRM(2) are set by a PRE command prior to PL playback, and updated by a Button Command in Navigation Button information during playback of the AV stream. The following application is made possible by referring to SPRM(1) and SPRM(2) . Here, for example, PL...

...will improve the efficiency of language learning.

(SPRM(3))

SPRM(3) is set by a PRE command prior to PL playback, and updated by a Button Command in the Navigation Button information during playback of the AV stream. In the case where multiangle sections are included in the AV stream, it can be found that video...

...found by referring to SPRMs(4)-(7). It should be noted that SPRMs(4)-(7) are not directly updated by PRE commands, POST commands, and Button commands, but they are updated by commands for PL playback. Although thus performed indirectly, the updates are implemented with dynamic scenarios, and therefore it can...

...10) is updated to a value indicating a display start time (Presentation Time) of the new piece of picture data. In the case where a Button Command in Navigation Button information has been described so that a transition from the MOVIE mode to the Java mode is performed during PL playback, a Java object in the Java mode is able to find a point to which a user has finished watching the movie work on the BD-ROM where the Button Command is stored. Additionally, in the Java mode, game software can be described so that appearing characters will be changed depending on the watching point...

...makes games in the Java mode more exciting. It should be noted that SPRM(10) is not directly updated by PRE commands, POST commands, and Button commands, but it is updated by commands for PL playback. Although thus performed indirectly, the updates are implemented with dynamic scenarios, and therefore it can...

...Integrated Management

The following gives an account of information for integrating and managing dynamic scenarios in the MOVIE mode, Java mode, and Browser mode. INFO.BD-ROM shown in FIG. 3 is such information for

"M-OBJ" below.

FIG. 16 shows an example of the MOVIE object in the case where the Navigation Button information in the AV stream is set as shown in FIG. 15. The MOVIE object in the figure is composed of: a PRE command for ...

...to MOVIE object #m+1 is performed if GPRM(0) shows "0", which is a value at the initialization. On the other hand, if a button selection is performed when a menu is displayed and GPRM(0) is set to a value other than "0", then branching is performed to another Title (Title#m).

If commands for changing the register setting value according to user operations are incorporated in the Navigation Button information, and conditional branching using the register setting value in a playback device is described as the POST commands, it is possible to easily create ...

...movie work whose progress of playback can be changed according to user operations.

Since there are two types of scenarios in the MOVIE mode (Navigation Button information and MOVIE objects), processing needing to synchronize precisely with the button behavior on a menu can be described in Navigation Button information, and integrative processing such as pre- and post-processing for PL playback can be described in MOVIE objects. Thus, the command description can be changed depending on whether processing to be synchronized with buttons or integrative processing, which increases the range of expression for playback controls. Furthermore, the description of playback controls does not require playback devices to have large capacity memory by writing new Navigation Button information over old one, even if the number of playback controls needing to synchronize with buttons increases.

#### 1.4 Dynamic Scenarios in Java Mode

The following explains dynamic scenarios used in the Java mode. ZZZ.CLASS is a class file in...

...figure is identical to the exemplified description of the MOVIE object shown in FIG. 16. GPRM(0) in the figure is set by the Navigation Button information incorporated in the AV stream. GPRM(0) is a parameter managed on Layer 3 (static scenarios) in the layer model. Since GPRM(0) can...

...be switched according to GPRM(0) that has been set in the MOVIE mode. The value in GPRM(0) can be changed by the Navigation Button information in the MOVIE mode, and a CG to be rendered can be switched in the Java mode. With cooperation between a MOVIE object and...

...scenes from a movie can be programmed in the Java language, it is possible to have a number of software houses set their entry into BD-ROM producing businesses.

#### 1.5 Dynamic Scenarios in Browser Mode

A WebPage object (ZZZ.HTM) is a scenario described in a page-description language, such as...

...access is made to a website pertaining to Character C when GPRM(0) is "3". GPRM(0) in FIG. 22 is set by the Navigation Button information incorporated in the AV stream. In addition, since GPRM(0) is in Layer 3 (static scenarios) in the layer model, and can be referred...

...ZZZ.MOVIE, ZZZ.CLASS, and ZZZ.HTM, is an abstract representation of a 3-digit identification number appended to the individual dynamic scenarios in the BD-ROM. That is, the scenarios in FIG. 23

indicated by the pushed arrow key by referring to the Relationship with upper/lower/side buttons in Button Affiliated information, and then change a state of the button. Thus, according to the push down of an arrow key, the state of a button in the direction indicated by the key is changed. Subsequently, when the confirmation operation is performed by a user, it is possible to execute a dynamic playback control according to the pushed button by implementing Button Command of the Button Affiliated information corresponding to the button.

Since the Navigation Button information is incorporated in the AV stream, it is convenient in the description of playback controls for having a playback device execute specific processing according...

...which a particular frame of videos appears on a screen, that is, playback controls synchronized precisely with the video contents. In addition, since the Navigation Button information is multiplexed on the actual AV stream, even when there are hundreds of sections needing to perform playback controls, there is no need to store all the Navigation Button information corresponding to the sections in memory. The Navigation Button information is read from the BD-ROM for every ACCESS UNIT along with video packets. Therefore, it is preferable to have pieces of the Navigation Button information corresponding to a video section for the current playback reside in memory, and then to delete these pieces of the Navigation Button information from memory when playback of this video section is over and store pieces of the Navigation Button information corresponding to the next video section in memory. Since the Navigation Button information is multiplexed on the AV stream, the installed memory can be kept to a minimum required amount even when, for instance, there are hundreds of pieces of the Navigation Button information.

An exemplified description of Button information is explained with reference to FIG. 15. FIG. 15 shows an example of when button controls are implemented using the Navigation Button information multiplexed on the AV stream.

The AV stream in FIG. 15 is a movie, and multiple buttons in the figure are displayed, being combined with one frame of the movie. Buttons A, B, and C in the figure each correspond to characters appearing in the movie works, and the state of each button is switched between selected and confirmed states through a selection operation for selecting one of Characters A, B, and C appearing in the movie.

In FIG. 15, the Navigation Button information is placed, in the video stream, ahead of a period where an interactive operation is required. When a button on a menu is confirmed, the Navigation Button information multiplexed on the AV stream in the figure sets GPRM(0) to a value unique to the button. GPRM(0) is a register setting value managed on Layer 3 (static scenarios) in the layer model. Specifically speaking, GPRM(0) is set to "1" when the button for Character A is confirmed, and GPRM(0) is set to "2" when the button for Character B is confirmed. When the button for Character C is confirmed, GPRM(0) is set to "3". Rendering the Navigation Button information in this way allows for saving, in GPRM(0), information on which button was selected at the time of the menu rendered. Thus completes the description of the Navigation Button information.

A MOVIE object (XXX.MOVIE) is a dynamic scenario described in commands that resemble those comprehensible to DVD playback devices. The MOVIE object is...

...with PLs whose playback is instructed with individual MOVIE objects is called Titles. Titles are units that correspond to an entire movie work on the BD-ROM. "MOVIE object" is sometimes shortened to

- ...programs in character. Here, dynamic playback controls have two modes. One of the two modes is a mode for playing video data recorded on the BD-ROM (normal mode) in a playback environment specific to AV devices, and the other mode is for enhancing the added value of video data recorded on the BD-ROM (enhanced mode). FIG. 12 shows playback modes on Layer 4 of the layer model. One normal mode and two enhanced modes are shown on Layer...
- ...description of control procedures in the Java language comprehensible to Java Virtual Machines. In the case where playback controls are for controlling motion of computer graphics (CG), it is possible to define a playback control, in the Java mode, for a CG image moving around (an owl in the figure) next...
- ...Dynamic Scenarios in MOVIE Mode
 

The following description relates to dynamic scenarios in the MOVIE mode. Dynamic scenarios in the MOVIE mode include the Navigation Button information in transport streams and MOVIE objects.

The Navigation Button information, which is one of streams multiplexed on the AV stream, controls the behavior of buttons on a menu, and executes playback controls in response to a confirmed button. The menu behavior includes (i) changing a button status on the menu in response to a push down of an arrow key on the remote control, (ii) updating a register value in a playback device according to a button confirmation on the menu, and (iii) realizing branching in response to a button confirmation on the menu. Controlling the behavior and having a playback device execute commands according to buttons are roles of the Navigation Button information. FIG. 14 shows a structure of the Navigation Button information. The Navigation Button information is composed of Button control information and Image Data. Image data comprises, as indicated by the dashed line hh1, plural pieces of PNG data (PNGs) and a look up...
- ...Individual pieces of the PNG data (PNG data #1, PNG data #2, and PNG data #3) in Image Data are image data for rendering each button (Button #1, Button #2, and Button #3) on the menu.
 

The Button control information comprises, as indicated by the dashed line hh2, Page Affiliation information and Button Affiliated information. The Page Affiliation information is, as indicated by the dashed line hh3, structured from "Button display begin Time", which indicates a beginning time for displaying buttons, "Button display end Time", which indicates an ending time for the display, and "Initially selected Button", which indicates a button to be in selected state at the initial condition.

The Button Affiliated information is, as indicated by the dashed line hh4, structured from plural pieces of Button Affiliation #1, Button Affiliation #2, ... and so on. Each piece of the Button Affiliations is, as indicated by the dashed line hh5, composed of "Button image information" that indicates, from among plural pieces of the PNG data, which is an image for a corresponding button, "Button display location" that indicates a location of the button image, "Relationship with upper/lower/side buttons" that indicates which buttons are located on the left, right, above and below of the button, respectively, and "Button Command" to be executed when the button is confirmed.

In the Button Affiliated information related to individual buttons on a menu, which buttons are located on the left, right, above and below of each button is described. Therefore, it is possible to, in response to a push down of an arrow key on the remote control by a user, identify a button located along the direction

...Stream) format digital stream, and is obtained by multiplexing a video stream, one or more audio streams, one or more subtitle streams, and the Navigation Button information. The video stream means a video portion of a movie, the audio streams mean audio portions of the movie, the subtitle streams means subtitles of the movie, and the Navigation Button information means procedures of dynamic playback controls that target menus. FIG. 6 schematically shows how the AV stream is configured.

The AV stream (Level 4...

...Level 1) respectively into PES packet sequences (Level 2), each of which is then converted to TS packets (Level 3), (ii) likewise converting the Navigation Button information (Level 7) to a PES packet sequence (Level 6), which is then converted into TS packets (Level 5), (iii) and then multiplexing all the...

...the TS packets storing audio frames so that the audio frames are positioned close to the video frames that are to be read from the BD-ROM at the same time as the audio frames. Since the Navigation Button information relates to dynamic playback controls, the explanation is omitted here. In addition, subtitle streams have less to do with the present embodiment, and therefore...

...from FIG. 6.

The AV stream generated through the above process is portioned into a plurality of extents and recorded in an area of the BD-ROM, as is the case with general computer files. FIG. 7 schematically shows how the AV stream is recorded on the BD-ROM.

A length of each extent constituting the AV stream and an address indicating where, in the BD-ROM, the extent is recorded are described in file management information fkl.

It can be seen that, for each of three extents (Extent 1, Extent 2...

...Note that the filename "XXX" in XXX.M2TS is an abstract representation of the 3-digit identification number appended to the AV stream in the BD-ROM. That is, the AV stream in FIG. 7 is uniquely identified with the "XXX". Thus completes the description of the stream (XXX.M2TS). It should...

...jy4) involves indirect referencing in which the addresses of ACCESS UNITS included in the AV stream are specified via the TMAP.

Playback sections on the BD-ROM that are formed from groupings of Cell information, stream management information, and the AV stream are called "CELLs". Logical playback units on the BD-ROM that are formed from groupings of PL information, stream management information, and the AV stream are called "PlayLists" (abbreviated as "PL"). Movie works recorded on the BD-ROM are structured in these logical playback units (PLs). Therefore, it is possible to easily create, as distinct from the actual movie, movie works made of...

...variations of movie works increase simply by defining various pieces of PL information.

There are, in addition to PLs and CELLs, playback units in the BD-ROM called Chapters. Chapters are structured from one, two, or more CELLs.

Also, the filename "YYY" of the PL information is an abstract representation of the 3-digit identification number appended to PL information in the BD-ROM. That is, the PL information in FIG. 11 is uniquely identified using the identification number, "YYY". Expressing the identification number of the PL information as...

performed by a playback control engine 12;

FIG. 32 shows a file structure of a BD-ROM according to a second embodiment;

FIG. 33 shows a data structure common to a PLMark and a ClipMark;

FIGs. 34A and 34B show exemplified descriptions...

...playback point having reached Time t2;

FIG. 45 schematically shows an occurrence of a Pause Event;

FIG. 46 shows a menu hierarchy realized by a BD-ROM;

FIG. 47 shows MOVIE objects for operating menus having such a hierarchy;

FIG. 48 shows processing procedures performed by a module manager 20 according to...

...the MOVIE mode or the Java mode while a digital stream is shared by the MOVIE and Java modes;

FIG. 56 is a flowchart showing BD-ROM production processes according to an eighth embodiment; and

FIG. 57 shows an example of a playback control for branching directly from Navigation Button information in the AV stream to a Java object.

### Best Mode for Carrying Out the Invention

#### 1. First Embodiment

The following gives an account of...

...implementation of the recording medium of the present invention. FIG. 1 shows a usage application of the recording medium according to the present invention. A BD-ROM 100 in FIG. 1 is the recording medium of the present invention. The BD-ROM 100 is used for supplying movie works to a home theater system composed of a playback device 200, a television 300, and a remote controller...

...the present invention can be implemented as a result of improvements in the application layer of BD-ROMs. FIG. 2 shows a structure of a BD-ROM.

Level 4 in the figure shows the BD-ROM, and Level 3 shows a track on the BD-ROM. The figure depicts the track in a laterally drawn-out form, although the track is, in fact, formed in a spiral, winding from the inside toward the outside of the BD-ROM. The track is composed of a lead-in area, a volume area, and a lead-out area. The volume area in the figure has a...

...The recording medium of the present invention is industrially manufactured by forming the data format shown in FIG. 2 on the application layer of a BD-ROM.

FIG. 3 shows a format of the application layer (applications) of the BD-ROM by using a directory structure. In the BD-ROM, as shown in the figure, JCLASS directory and BROWSER directory are located under BD-ROMAV directory, which is found under ROOT directory.

Under BD-ROMAV directory, there are files named INFO.BD-ROM, XXX.M2TS, XXX.CLPI, YYY.PL, and ZZZ.MOVIE. Under JCLASS directory and BROWSER directory, individual files called ZZZ.CLASS and ZZZ.HTM are respectively...

...to 4) of FIG. 4 targets a layer model as shown in FIG. 5. The following describes the layer model of control software that the BD-ROM targets, with reference to FIG. 5.

Layer 1 of FIG. 5 is a physical layer in which supply controls relating to streams targeted for processing...



recording medium as a multiplexed stream after being multiplexed with the video data and subtitle data; and each piece of the subtitle data may be image data of a button, and the button command may be executed when a confirmation operation is conducted with respect to the image data of the button.

The button commands comply with commands comprehensible to DVD playback devices, and describing control procedures using the button commands allows the compatibility of control procedures with DVDs. As a result of ensuring the compatibility, it is possible to standardize control structures in the...Of The Drawings

FIG. 1 shows a usage application of a recording medium according to the present invention;

FIG. 2 shows a structure of a BD-ROM;

FIG. 3 shows an application layer format of the BD-ROM by using a directory structure;

FIG. 4 is a classification diagram in which files are classified from a functionality viewpoint;

FIG. 5 shows a layer model of software that a BD-ROM targets;

FIG. 6 schematically shows how an AV stream is configured;

FIG. 7 schematically shows how the AV stream is recorded on the BD-ROM;

FIG. 8 shows an internal structure of Stream Management Information;

FIG. 9 shows an internal structure of PL information;

FIG. 10 schematically shows indirect referencing...

...scenarios) of the layer model;

FIG. 13 shows movie works created through dynamic playback controls of three modes;

FIG. 14 shows a structure of Navigation Button information;

FIG. 15 shows an example of when button controls are implemented using the Navigation Button information multiplexed on the AV stream;

FIG. 16 shows an example of a MOVIE object in the case where the Navigation Button information in the AV stream is set as shown in FIG. 15;

FIG. 17 shows an exemplified description of a Java object in the case ...

...from one used in the MOVIE mode;

FIG. 22 shows an exemplified description of a WebPage object;

FIG. 23A shows an internal structure of INFO.BD-ROM;

FIG. 23B shows Indexes in an Index Table;

FIG. 24A shows a BD-ROM on which a plurality of dynamic scenarios (001.MOVIE, 002.MOVIE, 003.MOVIE, ..., 001.CLASS, 002.CLASS, 003.CLASS, ...) is recorded;

FIG. 24B shows an exemplified description of the Index Table of when a plurality of dynamic scenarios as shown in FIG. 24A is described in a BD-ROM;

FIG. 25A shows indirect referencing in a full system of when the Index Table is described as in FIG. 24B;

FIG. 25B shows indirect referencing...

...from the MOVIE object shown in FIG. 18 to the Java object is performed;

FIG. 27 shows what kind of branching is performed when a BD-ROM having the scenarios shown in FIG. 18 recorded thereon is loaded in a core system playback device;

FIG. 28 shows an internal structure of a...

...a flowchart showing an execution procedure of a PLPlay function

01736471

RECORDING MEDIUM, REPRODUCTION DEVICE, PROGRAM, REPRODUCTION METHOD, AND  
RECORDING METHOD

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SPEC A	(English)	200527	26542
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Total word count - documents A + B			29400

## ...ABSTRACT A1

Recorded on the recording medium (BD-ROM) is an AV stream  
that is obtained by multiplexing a video stream and one or more audio  
streams. MOVIE objects are scenarios showing playback procedures...

## ...SPECIFICATION A1

## Technical Field

The present invention relates to a video-data recording medium such as  
Blu-Ray Disc Read Only Memory (hereinafter simply "BD-ROM"),  
a playback device for playing such a recording medium, a program, a  
playback method, and a recording method, and in particular relates to a  
technology...

...In the case of seeking integration with a DVD playback environment, in  
the recording medium of Claim 13, a movie-mode program may include a  
button command; the button command may be a command for  
branching to the enhanced-mode program, and may be recorded on the

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Priority Applications (no., kind, date): JP 200547994 A 20050223

#### Patent Details

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WO 2006090664 A1 JA 109 43

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

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FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

Information recording medium e.g. blu-ray disk-ROM includes  
scenario control description data associated with each of titles for  
controlling reproduction order of titles

Inventor: IKEDA W...

Alerting Abstract USE - For e.g. blu-ray disk-ROM (BD-ROM),  
standard definition-DVD (SD-DVD) and compact disk-ROM (CD-ROM...

Original Publication Data by Authority

Inventor name & address:

...IKEDA, Wataru

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DIALOG(R)File 350:Derwent WPIX

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XRPX Acc No: N2006-493788

Blu-ray disk-ROM reproduction apparatus has replay device which  
selects and replays one of the audio streams in accordance with combination  
of conditions decided to be satisfied

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: IKEDA W; OKADA T; YAHATA H

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National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM  
SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1710799 A1 EN PCT Application WO 2006JP1665

Based on OPI patent WO 2006082850

Regional Designated States,Original: AL AT BA BE BG CH CY CZ DE DK EE ES

FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

EP 1710799 A8 EN PCT Application WO 2006JP301665

Based on OPI patent WO 2006082850

Regional Designated States,Original: DE FR GB

Blu-ray disk-ROM reproduction apparatus has replay device which  
selects and replays one of the audio streams in accordance with combination  
of conditions decided to be...

Inventor: IKEDA W...

...OKADA T...

...YAHATA H

Alerting Abstract USE - For blu-ray disk (BD) ROM  
reproduction apparatus...

Original Publication Data by Authority

Inventor name & address:

IKEDA, Wataru...

...OKADA, Tomoyuki...

...YAHATA, Hiroshi...

...IKEDA W...

...OKADA T...

...YAHATA H...

...IKEDA, Wataru...

...OKADA, Tomoyuki...

...YAHATA, Hiroshi

16/3,K/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0016077065 - Drawing available

WPI ACC NO: 2006-608696/200663

XRPX Acc No: N2006-490881

ROM type blu-ray disk player acquires application data from  
server based on determined language of application

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; KUWANO H; MATSUNAGA S; TAKAMATSU R

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Application Date	Number	Kind	Date	Update
JP 2006244655	A	20060914	JP 200561574	A	20050304	200663 B

Priority Applications (no., kind, date): JP 200561574 A 20050304

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2006244655	A	JA	40	37	

ROM type blu-ray disk player acquires application data from server based on determined language of application

Inventor: IKEDA W...

Alerting Abstract ...unit notifies a linguistic code based on the determined language. An application-data acquisition unit acquires the application data from the server and records in blu-ray disk.

USE - For ROM type blu-ray disk player...

...DESCRIPTION OF DRAWINGS - The figure shows a example of the download application for reproducing using the ROM type blu-ray disk player. (Drawing includes non-English language text)

Original Publication Data by Authority

Inventor name & address:

...IKEDA W

16/3,K/13 (Item 13 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016077064 - Drawing available

WPI ACC NO: 2006-608695/200663

XRPX Acc No: N2006-490880

ROM type blu-ray disk reproduces audio-video content of digital stream based on desired title selected by user

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; KUWANO H; MATSUNAGA S; TAKAMATSU R

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Application Date	Number	Kind	Date	Update
JP 2006244654	A	20060914	JP 200561573	A	20050304	200663 B

Priority Applications (no., kind, date): JP 200561573 A 20050304

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2006244654	A	JA	44	44	

ROM type blu-ray disk reproduces audio-video content of digital stream based on desired title selected by user

Inventor: IKEDA W...

Alerting Abstract USE - For ROM type blu-ray disk...

...DESCRIPTION OF DRAWINGS - The figure shows a outline block diagram of the ROM type blu-ray disk player. (Drawing includes non-English

language text...

## Original Publication Data by Authority

Inventor name &amp; address:

...IKEDA W

16/3,K/14 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016059168 - Drawing available  
WPI ACC NO: 2006-590799/200661  
XRPX Acc No: N2006-476130  
Information recording medium e.g. Blu-ray Disc, High-definition  
DVD, has application described by multiple titles and declarative  
languages, and having prescribed survival period on memory  
Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)  
Inventor: IKEDA W; KUWANO H; MATSUNAGA S; TAKAMATSU R  
Patent Family (1 patents, 1 countries)  
Patent                      Application  
Number      Kind   Date   Number      Kind   Date   Update  
JP 2006228339   A   20060831   JP 200542000   A   20050218   200661   B

Priority Applications (no., kind, date): JP 200542000   A   20050218

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
JP 2006228339	A	JA	38	37		

Information recording medium e.g. Blu-ray Disc, High-definition  
DVD, has application described by multiple titles and declarative  
languages, and having prescribed survival period on memory  
Inventor: IKEDA W...

Alerting Abstract ...USE - Information recording medium e.g. <b>Blu  
-ray Disc </b>(RTM: not defined), <b>High-definition DVD  
</b>(RTM: not defined...

## Original Publication Data by Authority

Inventor name &amp; address:

IKEDA W...

16/3,K/15 (Item 15 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0016054398 - Drawing available  
WPI ACC NO: 2006-586028/200660  
Related WPI Acc No: 2006-689133; 2006-689134  
XRPX Acc No: N2006-471921  
Recording medium e.g. blu-ray disk has upper node field of  
packet identifier, to indicate that audio stream formed by packet is  
secondary audio stream and audio output of secondary audio stream and  
primary audio stream are mixed

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: OKADA T; YAHATA H

Patent Family (4 patents, 112 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2006080460	A1	20060803	WO 2006JP301359	A	20060127	200660 B
EP 1713075	A1	20061018	EP 2006712525	A	20060127	200669 E
			WO 2006JP1359	A	20060127	
IN 200601756	P2	20070511	WO 2006JP301359	A	20060127	200747 E
			IN 2006KN1756	A	20060623	
CN 1942968	A	20070404	CN 200680000034	A	20060127	200757 E

Priority Applications (no., kind, date): JP 200520716 A 20050128; JP 200520717 A 20050128; JP 200520718 A 20050128; JP 200520719 A 20050128; JP 200520720 A 20050128

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006080460 A1 JA 134 50

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1713075 A1 EN PCT Application WO 2006JP1359

Based on OPI patent WO 2006080460

Regional Designated States,Original: AL AT BA BE BG CH CY CZ DE DK EE ES

FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

IN 200601756 P2 EN PCT Application WO 2006JP301359

Recording medium e.g. blu-ray disk has upper node field of packet identifier, to indicate that audio stream formed by packet is secondary audio stream and audio output of secondary...

Inventor: OKADA T...

...YAHATA H

Original Publication Data by Authority

Inventor name & address:

YAHATA H...

...OKADA T...

...YAHATA, Hiroshi, c/o Matsushita El. Ind. Co., Ltd...

...OKADA, Tomoyuki, c/o Matsushita El. Ind. Co., Ltd...

...YAHATA H...

...OKADA T...

...YAHATA, Hiroshi...

...OKADA, Tomoyuki

16/3,K/16 (Item 16 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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0015905918 - Drawing available  
 WPI ACC NO: 2006-437559/200645  
 XRPX Acc No: N2006-360014

Information recording medium e.g. blu-ray disk-ROM stores  
 identification information indicating whether field pair exists in encoding  
 data used for encoding image of one frame per field

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; OKADA T; TOMA T

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
JP 2006157855	A	20060615	JP 200549981	A	20050225	200645 B

Priority Applications (no., kind, date): JP 2004321350 A 20041104

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
JP 2006157855	A	JA	52	54		

Information recording medium e.g. blu-ray disk-ROM stores  
 identification information indicating whether field pair exists in encoding  
 data used for encoding image of one frame per field

Inventor: IKEDA W...

...OKADA T

Alerting Abstract ...USE - For information recording medium such as  
blu-ray disk-ROM (BD-ROM), CD-ROM and DVD-ROM...

Original Publication Data by Authority

Inventor name & address:

...OKADA T...

...IKEDA W

16/3,K/17 (Item 17 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0015892257 - Drawing available  
 WPI ACC NO: 2006-423935/200643  
 XRPX Acc No: N2006-350265

Reproduction apparatus e.g. DVD player, reads background image from memory,  
 based on whether moving picture covers entire background image

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: HASHIMOTO S; IKEDA W; OASHI M; OKADA T

Patent Family (2 patents, 112 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2006059661	A1	20060608	WO 2005JP22022	A	20051130	200643 B
EP 1818907	A1	20070815	EP 2005811752	A	20051130	200755 E
			WO 2005JP22022	A	20051130	



Priority Applications (no., kind, date): JP 2004349143 A 20041201

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006059661 A1 JA 96 32

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1818907 A1 EN PCT Application WO 2005JP22022

Based on OPI patent WO 2006059661

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR

GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

...Inventor: IKEDA W......OKADA TAlerting Abstract ...USE - For DVD player and Blu-ray disk  
(BD) player...

Original Publication Data by Authority

Inventor name &amp; address:

...OKADA, Tomoyuki, c/o Mats. El. Ind. Co., Ltd., IPROC......IKEDA, Wataru, c/o Mats. El. Ind. Co., Ltd., IPROC......OKADA, Tomoyuki......IKEDA, Wataru

16/3,K/18 (Item 18 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015892253 - Drawing available

WPI ACC NO: 2006-423931/200643

XRPX Acc No: N2006-350261

Optical disk e.g. compact disc, for audio-video reproduction, stores  
mixing-on-flag indicating whether to mix clip sound corresponding to user  
operation on Java application and audio output of clip during reproduction  
control

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: HASHIMOTO S; OASHI M; OKADA T; YAHATA H; HASHIMOTO S  
E; OASHI M E; OKADA T E; YAHATA H E

Patent Family (3 patents, 112 countries)

Patent Application

Number Kind Date Number Kind Date Update

WO 2006059654 A1 20060608 WO 2005JP22009 A 20051130 200643 B

EP 1770705 A1 20070404 EP 2005811742 A 20051130 200726 E

WO 2005JP22009 A 20051130

CN 1954387 A 20070425 CN 200580015873 A 20051130 200759 E

Priority Applications (no., kind, date): JP 2004349144 A 20041201

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006059654 A1 JA 127 45

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG

MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM

SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1770705 A1 EN PCT Application WO 2005JP22009

Based on OPI patent WO 2006059654

Regional Designated States,Original: AL AT BA BE BG CH CY CZ DE DK EE ES

FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

...Inventor: OKADA T......YAHATA H......OKADA T E......YAHATA H E

Alerting Abstract ...USE - E.g. compact disk, DVD, phase change disk,  
magneto optical disk, Blu-ray disk, used in audio-video  
reproduction...

Original Publication Data by Authority

Inventor name &amp; address:

...OKADA T......YAHATA H......OKADA, Tomoyuki, Matsushita Ele.Ind.Co., Ltd......YAHATA, Hiroshi, Matsushita Ele.Ind.Co., Ltd......OKADA, Tomoyuki......YAHATA, Hiroshi

16/3,K/19 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0015736958 - Drawing available

WPI ACC NO: 2006-298476/200631

XRPX Acc No: N2006-253416

Data processing apparatus e.g. optical disk recorder for digital  
television, generates basic picture information relating reproduction time  
and recording position of basic picture based on type and recording format  
of recording medium

Patent Assignee: ITOH M (ITOH-I); MATSUSHITA DENKI SANGYO KK (MATU);

YAHATA H (YAHA-I); MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: ITOH M; YAHATA H

Patent Family (3 patents, 3 countries)

Patent		Application	
Number	Kind Date	Number	Kind Date Update
US 20060077775	A1 20060413	US 2005247623	A 20051011 200631 B
JP 2006140992	A 20060601	JP 2005294700	A 20051007 200637 E
CN 1780385	A 20060531	CN 200510113699	A 20051012 200661 E

Priority Applications (no., kind, date): JP 2004297435 A 20041012

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
US 20060077775	A1	EN	42	26		
JP 2006140992	A	JA	41			

...Inventor: YAHATA H

Alerting Abstract ...USE - E.g. optical disk recorder for recording and reproducing data stored on optical disk e.g. digital versatile disk (DVD) RAM, blu-ray disk, magneto-optical disk. Also other central processing unit (CPU) in computer for hard disk, memory card and transmitting reproduced data to external devices such...

## Original Publication Data by Authority

Inventor name &amp; address:

...YAHATA H......Yahata, Hiroshi

16/3,K/20 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015708781 - Drawing available

WPI ACC NO: 2006-272119/200628

XRPX Acc No: N2006-232525

Data processor e.g. personal computer deletes data of amount identical to integer multiple of least common multiple of cluster size and packet size, based on received information indicating designation of partial deletion range of data

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: ITOH M; OKADA T; YAHATA H; ITOH M E; OKADA T E;YAHATA H E

Patent Family (2 patents, 110 countries)

Patent		Application	
Number	Kind Date	Number	Kind Date Update
WO 2006033275	A1 20060330	WO 2005JP17029	A 20050915 200628 B
EP 1802117	A1 20070627	EP 2005783266	A 20050915 200743 E
		WO 2005JP17029	A 20050915

Priority Applications (no., kind, date): JP 2004277594 A 20040924; JP 2004326351 A 20041110

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2006033275	A1	JA	63	19		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK  
 MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY  
 TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
 SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1802117 A1 EN PCT Application WO 2005JP17029

Based on OPI patent WO 2006033275

Regional Designated States, Original: DE FR GB

...Inventor: OKADA T...

...YAHATA H...

...OKADA T E...

...YAHATA H E

Alerting Abstract ...e.g. personal computer (PC) for editing video data  
 and audio data recorded on recording medium such as micro hard disk,  
 digital versatile disk (DVD), blu-ray disk (BD) and  
 semiconductor memory using mobile camera-phone and camcorder...

Original Publication Data by Authority

Inventor name & address:

YAHATA, Hiroshi, Matsushita electr.Ind.Co.Ltd...

...OKADA, Tomoyuki, Matsushita Electr.Ind.Co.Ltd...

...YAHATA, Hiroshi...

...OKADA, Tomoyuki

16/3,K/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015689108 - Drawing available

WPI ACC NO: 2006-253187/200626

XRPX Acc No: N2006-217033

Data processor of blu ray disk recorder generates table by  
 correlating picture display time information, picture data storage position  
 stream and file information identifying stream file in which picture data  
 is to be stored

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: YAHATA H

Patent Family (1 patents, 109 countries)

Patent

Application

Number Kind Date Number Kind Date Update

WO 2006030767 A1 20060323 WO 2005JP16815 A 20050913 200626 B

Priority Applications (no., kind, date): JP 2004265103 A 20040913

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006030767 A1 JA 85 34

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN  
 MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ  
 TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
 FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
 SD SE SI SK SL SZ TR TZ UG ZM ZW

Data processor of **blu ray** disk recorder generates table by  
 correlating picture display time information, picture data storage position  
 stream and file information identifying stream file in which picture data

...  
 Inventor: **YAHATA H**

Alerting Abstract ...USE - For **blu ray** disk recorder with  
 built-in hard disk drive (HDD) used with television (TV), personal  
 computer, camcorder and mobile phone...

...DESCRIPTION OF DRAWINGS - The figure shows a functional block diagram of  
**blu ray** disk recorder. (Drawing includes non English language  
 text...

...100 **blu ray** disk recorder...

Original Publication Data by Authority

Inventor name & address:

**YAHATA, Hiroshi**

16/3,K/22 (Item 22 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0015676637 - Drawing available

WPI ACC NO: 2006-240827/200625

XRPX Acc No: N2006-206650

Recording medium with playlist information, stores data specifying mainclip  
 and subclip among audio/video clips, and uses entry map to correlate and  
 indicate entry time of subclip with entry positions in subclip

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC  
 IND CO LTD (MATU)

Inventor: **IKEDA W**; OASHI M; **OKADA T**; TANAKA K; IKEDA K; OOASHI  
 M

Patent Family (5 patents, 109 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2006028216	A1	20060316	WO 2005JP16640	A	20050909	200625 B
JP 2006107705	A	20060420	JP 2005255846	A	20050905	200627 E
CN 1747543	A	20060315	CN 200510098185	A	20050912	200644 E
EP 1715686	A1	20061025	EP 2005782350	A	20050909	200670 E
			WO 2005JP16640	A	20050909	
CN 1926857	A	20070307	CN 200580006562	A	20050909	200752 E

Priority Applications (no., kind, date): JP 2004263628 A 20040910

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006028216 A1 JA 119 47

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN  
MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ  
TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
SD SE SI SK SL SZ TR TZ UG ZM ZW

JP 2006107705 A JA 27

EP 1715686 A1 EN PCT Application WO 2005JP16640

Based on OPI patent WO 2006028216

Regional Designated States, Original: DE FR GB

Inventor: IKEDA W...

...OKADA T

Alerting Abstract ...USE - Recording medium such as hard disk, DVD,  
blu-ray ROM (BD-ROM) disk, personal computer memory card  
international association (PCM-CIA) card, compact flash card, smart card,  
memory stick and multimedia card used with...

Original Publication Data by Authority

Inventor name & address:

IKEDA W...

...OKADA T...

...OKADA T...

...IKEDA, Wataru, c/o Matsushita Elec. Ind. CO., Ltd...

...OKADA, Tomoyuki, c/o Matsushita Elec. Ind. CO., Ltd...

...OKADA TOMOYUKI...

...IKEDA, Wataru...

...OKADA, Tomoyuki

16/3,K/23 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015653059 - Drawing available

WPI ACC NO: 2006-217241/200623

XRPX Acc No: N2006-186363

Information recording medium e.g. digital video disk records managed  
information containing information indicating that stream contains decoding  
starting point information

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; KONDO S; MATSUI Y; TOMA T; YAHATA H

Patent Family (1 patents, 1 countries)

Patent Application

Number Kind Date Number Kind Date Update

JP 2006073127 A 20060316 JP 2004257237 A 20040903 200623 B

Priority Applications (no., kind, date): JP 2004257237 A 20040903

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes  
JP 2006073127 A JA 36 33

Inventor: IKEDA W...  
...YAHATA H

Alerting Abstract USE - E.g. digital video disk (DVD), recordable/rewritable DVD-RAM, DVD-ROM, high definition DVD, blu-ray disk (BD), BD-ROM, compact disk and compact disk-ROM used in personal computer...

Original Publication Data by Authority

Inventor name & address:

YAHATA H...

...IKEDA W

16/3,K/24 (Item 24 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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0015648471 - Drawing available  
WPI ACC NO: 2006-212651/200622  
XRPX Acc No: N2006-182949

Optical disk e.g. blu-ray disk-ROM, stores entry map comprising entry information which indicates entry position of specific picture data, and matches with reproduction time of picture data

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: IKEDA W; KONDO S; MATSUI Y; OKADA T; TOMA T

Patent Family (1 patents, 109 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2006025527	A1	20060309	WO 2005JP16116	A	20050902	200622 B

Priority Applications (no., kind, date): JP 2004257236 A 20040903

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes  
WO 2006025527 A1 JA 50 17

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN  
MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ  
TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
SD SE SI SK SL SZ TR TZ UG ZM ZW

Optical disk e.g. blu-ray disk-ROM, stores entry map comprising entry information which indicates entry position of specific picture data, and matches with reproduction time of picture data

Inventor: IKEDA W...

...OKADA T

Alerting Abstract ...USE - Optical disk e.g. blu-ray disk-ROM  
(BD-ROM), DVD-ROM, DVD-RAM, recordable DVD (DVD-R), rewritable DVD  
(DVD-RW), recordable compact disk (CD-R), rewritable CD (CD-RW...

Original Publication Data by Authority

Inventor name & address:

IKEDA, Wataru...

...OKADA, Tomoyuki

16/3,K/25 (Item 25 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0015648417 - Drawing available

WPI ACC NO: 2006-212597/200622

XRPX Acc No: N2006-182899

Moving image encoding method involves determining continuous reproduction  
section of moving image and generating data stream by encoding moving image  
without switching variable length encoding scheme in continuous  
reproduction section

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: IGUCHI M; IKEDA W; KADONO S; KONDO S; MATSUI Y; OKADA  
T; TOMA T; YAHATA H

Patent Family (2 patents, 110 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2006025388	A1	20060309	WO 2005JP15766	A	20050830	200622 B
EP 1791358	A1	20070530	EP 2005776931	A	20050830	200735 E
			WO 2005JP15766	A	20050830	

Priority Applications (no., kind, date): JP 2004251870 A 20040831

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2006025388	A1	JA	127	52		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ

TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1791358 A1 EN PCT Application WO 2005JP15766

Based on OPI patent WO 2006025388

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR

GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

...Inventor: IKEDA W...

...OKADA T...

...YAHATA H

Alerting Abstract ...USE - For encoding moving image data recorded in



package media such as blu-ray disk-ROM (BD-ROM...

Original Publication Data by Authority

Inventor name & address:

...OKADA, Tomoyuki, c/o Matsushita Electric Industrial Co., Ltd...

...YAHATA, Hiroshi, c/o Matsushita Electric Industrial Co., Ltd...

...IKEDA, Wataru, c/o Matsushita Electric Industrial Co., Ltd...

...OKADA, Tomoyuki...

...YAHATA, Hiroshi...

...IKEDA, Wataru

16/3,K/26 (Item 26 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0015648404 - Drawing available

WPI ACC NO: 2006-212584/200622

XRPX Acc No: N2006-182886

Multiplexer used in audio-video equipment, generates table data by associating main descriptor composed of main tag value with packet identifiers of coded data, and outputs sub-descriptors in order of determined storage rule

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I);

KONDO S (KOND-I); MATSUI Y (MATS-I); OKADA T (OKAD-I); TOMA T

(TOMA-I); YAHATA H (YAHA-I)

Inventor: IKEDA W; KONDO S; MATSUI Y; OKADA T; TOMA T;

YAHATA H

Patent Family (4 patents, 110 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2006025338	A1	20060309	WO 2005JP15677	A	20050829	200622 B
EP 1791367	A1	20070530	EP 2005775173	A	20050829	200735 E
			WO 2005JP15677	A	20050829	
CN 1934864	A	20070321	CN 200580008325	A	20050829	200752 E
US 20070185941	A1	20070809	WO 2005JP15677	A	20050829	200754 E
			US 2006594280	A	20060926	

Priority Applications (no., kind, date): JP 2004251869 A 20040831

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2006025338 A1 JA 48 19

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ

TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO

SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1791367 A1 EN PCT Application WO 2005JP15677

Based on OPI patent WO 2006025338

Regional Designated States, Original: AT BE BG CH CY CZ DE DK EE ES FI FR

GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

US 20070185941 A1 EN PCT Application WO 2005JP15677

Inventor: IKEDA W......OKADA T......YAHATA H

Alerting Abstract ...USE - Multiplexer used in audio-video equipment used for recording information on disk such as compact disk (CD), digital versatile disk, blu-ray disk (BD), hard disk (HD), and video tape...

Original Publication Data by Authority

Inventor name &amp; address:

...OKADA T......IKEDA W......YAHATA H......OKADA, Tomoyuki, c/o Matsushita El. Ind. Co., Ltd......IKEDA, Wataru, c/o Matsushita El. Ind. Co., Ltd......YAHATA, Hiroshi, c/o Matsushita El. Ind. Co., Ltd......Okada, Tomoyuki......Ikeda, Wataru......Yahata, Hiroshi......OKADA, Tomoyuki......IKEDA, Wataru......YAHATA, Hiroshi

16/3,K/27 (Item 27 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015587213 - Drawing available

WPI ACC NO: 2006-151378/200616

XRPX Acc No: N2006-130659

Multiplexing method of moving image/management information, involves determining preparation conditions of random access unit based on RAU length/rate/size, according to which moving image is encoded to obtain stream comprising RAUs

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: KADONO S; OKADA T; TOMA T

Patent Family (1 patents, 1 countries)

Patent Application

Number Kind Date Number Kind Date Update

JP 2006050192 A 20060216 JP 2004227619 A 20040804 200616 B

Priority Applications (no., kind, date): JP 2004227619 A 20040804

# Patent Details

Number Kind Lan Pg Dwg Filing Notes  
JP 2006050192 A JA 33 27

...Inventor: OKADA T

Alerting Abstract ...USE - For multiplexing encoded moving image and management information in optical disk drive e.g. for DVD, Blu-ray disc, etc.

## Original Publication Data by Authority

Inventor name & address:

...OKADA T

16/3,K/28 (Item 28 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0015553710 - Drawing available  
WPI ACC NO: 2006-117865/200612  
XRPX Acc No: N2006-102044  
Optical disk e.g. Blu-ray disk ROM records playlist item information with in-time and out-time specifying one picture data in video stream and still time indicating period for freezing display of picture data

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)  
Inventor: IKEDA W; MORI Y; OKADA T; IKEDA W E I; MORI Y E  
; OKADA T E

Patent Family (3 patents, 109 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2006004122	A1	20060112	WO 2005JP12416	A	20050705	200612 B
EP 1768404	A1	20070328	EP 2005765467	A	20050705	200725 E
			WO 2005JP12416	A	20050705	
KR 2007029810	A	20070314	WO 2005JP12416	A	20050705	200755 E
			KR 2007701423	A	20070119	

Priority Applications (no., kind, date): JP 2004199175 A 20040706

## Patent Details

Number Kind Lan Pg Dwg Filing Notes  
WO 2006004122 A1 JA 82 32

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN  
MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ  
TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO  
SD SE SI SK SL SZ TR TZ UG ZM ZW

EP 1768404 A1 EN PCT Application WO 2005JP12416  
Based on OPI patent WO 2006004122

Regional Designated States,Original: DE FR GB  
KR 2007029810 A KO PCT Application WO 2005JP12416  
Based on OPI patent WO 2006004122

Optical disk e.g. Blu-ray disk ROM records playlist item information with in-time and out-time specifying one picture data in video stream and still time indicating period for...

Inventor: IKEDA W...

...OKADA T...

...IKEDA W E I...

...OKADA T E

Alerting Abstract ...USE - Optical disk e.g. Blu-ray disk ROM (BD-ROM) for recording browsable slide show...

Original Publication Data by Authority

Inventor name & address:

OKADA, Tomoyuki, Matsushita Elc.Ind.Co.Ltd...

...IKEDA W E I...

...OKADA T...

...IKEDA W...

...OKADA, Tomoyuki...

...IKEDA, Wataru

16/3,K/29 (Item 29 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015525559 - Drawing available

WPI ACC NO: 2006-089708/200609

Related WPI Acc No: 2006-089709

XRPX Acc No: N2006-077932

Reproduction device e.g. Blu-ray disk-read only memory

reproduction device refers set value of each flag in PSR to judge whether each of text subtitle streams can be displayed

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU); IKEDA W (IKED-I); OKADA T (OKAD-I)

Inventor: IKEDA W; OKADA T; IKEDA K

Patent Family (6 patents, 109 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005124779	A1	20051229	WO 2005JP11162	A	20050617	200609 B
JP 2006050570	A	20060216	JP 2005179195	A	20050620	200614 E
US 20060078301	A1	20060413	US 2005156055	A	20050617	200626 E
CN 1728806	A	20060201	CN 200510082364	A	20050620	200639 E
EP 1758121	A1	20070228	EP 2005751239	A	20050617	200718 E
			WO 2005JP11162	A	20050617	
KR 2007020126	A	20070216	WO 2005JP11162	A	20050617	200755 E
			KR 2007700018	A	20070102	

Priority Applications (no., kind, date): JP 2004181400 A 20040618; JP 2004195439 A 20040701

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005124779 A1 JA 136 68

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ

TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW

JP 2006050570 A JA 56

EP 1758121 A1 EN PCT Application WO 2005JP11162

Based on OPI patent WO 2005124779

Regional Designated States,Original: DE FR GB

KR 2007020126 A KO PCT Application WO 2005JP11162

Based on OPI patent WO 2005124779

Reproduction device e.g. Blu-ray disk-read only memory

reproduction device refers set value of each flag in PSR to judge whether each of text subtitle streams can be displayed

Inventor: IKEDA W......OKADA T

Alerting Abstract ...USE - E.g. Blu-ray disk-read only memory reproduction device for reproducing selected text subtitle stream together with moving picture...

...DESCRIPTION OF DRAWINGS - The figure shows a block diagram of the blu-ray disk-read only memory reproduction device. (Drawing includes non-English language text).

Original Publication Data by Authority

Inventor name &amp; address:

IKEDA W......OKADA T......IKEDA, Wataru, c/o Matsushita El. Ind. Co., Ltd......OKADA, Tomoyuki, c/o Matsushita El. Ind. Co., Ltd......OKADA TOMOYUKI......IKEDA W......OKADA T......Ikeda, Wataru......Okada, Tomoyuki......IKEDA, Wataru......OKADA, Tomoyuki

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0015514716 - Drawing available

WPI ACC NO: 2006-078861/200608

XRPX Acc No: N2006-068368

Optical disk recorder generates table which associates file specifying data that specifies storage position of still picture in hierarchy in still picture folder with ID data, and records generated table in recording medium as table file

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: YAHATA H

Patent Family (2 patents, 109 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005122173	A1	20051222	WO 2005JP10468	A	20050608	200608 B
EP 1763032	A1	20070314	EP 2005748909	A	20050608	200722 E
			WO 2005JP10468	A	20050608	

Priority Applications (no., kind, date): JP 2004173109 A 20040610

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005122173 A1 JA 75 29

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ

TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW

EP 1763032 A1 EN PCT Application WO 2005JP10468

Based on OPI patent WO 2005122173

Regional Designated States,Original: DE FR GB

Inventor: YAHATA H

Alerting Abstract ...For recording still picture image obtained using digital still camera or camcorder and moving image on optical disk such as digital versatile disk (DVD) and blu-ray disk...

Original Publication Data by Authority

Inventor name &amp; address:

YAHATA, Hiroshi, c/o Matsushita El. Ind. Co., Ltd......YAHATA, Hiroshi

16/3,K/31 (Item 31 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0015502864 - Drawing available

WPI ACC NO: 2006-067002/200607

XRPX Acc No: N2006-058178

Recording medium e.g. blu-ray disc in reproducing device, records video stream and entry map, indicates entry information on

respective picture, and decodes each of picture data

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: IKEDA W; OKADA T; IKEDA W E I; OKADA T E

Patent Family (6 patents, 109 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005120061	A1	20051215	WO 2005JP10145	A	20050602	200607 B
EP 1761055	A1	20070307	EP 2005745975	A	20050602	200720 E
			WO 2005JP10145	A	20050602	
KR 2007020493	A	20070221	WO 2005JP10145	A	20050602	200755 E
			KR 2006725673	A	20061206	
JP 2007221818	A	20070830	JP 2006519582	A	20050602	200758 E
			JP 200782098	A	20070327	
JP 2007221819	A	20070830	JP 2006519582	A	20050602	200758 E
			JP 200782099	A	20070327	
JP 2007228609	A	20070906	JP 2006519582	A	20050602	200760 E
			JP 200782097	A	20070327	

Priority Applications (no., kind, date): JP 2004164203 A 20040602

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005120061	A1	JA	80	33		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ

TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW

EP 1761055 A1 EN PCT Application WO 2005JP10145

Based on OPI patent WO 2005120061

Regional Designated States,Original: DE FR GB

KR 2007020493 A KO PCT Application WO 2005JP10145

Based on OPI patent WO 2005120061

JP 2007221818 A JA 37 Division of application JP 2006519582

JP 2007221819 A JA 36 Division of application JP 2006519582

JP 2007228609 A JA 37 Division of application JP 2006519582

Recording medium e.g. blu-ray disc in reproducing device,  
records video stream and entry map, indicates entry information on  
respective picture, and decodes each of picture data

Inventor: IKEDA W...

...OKADA T...

...IKEDA W E I...

...OKADA T E

Alerting Abstract ...entry map which correlates and indicates entry time  
of each IDR picture in video stream with entry position are recorded on a  
read only memory blu-ray disc (BD-ROM). The entry information  
on respective picture data constituting a video stream that exists in entry  
position (EP) map is indicated and each...

...USE - E.g. blu-ray disc for recording video stream and entry map in reproducing device (claimed...

Original Publication Data by Authority

Inventor name & address:

IKEDA, Wataru, Matsushita Elc Ind Co.Ltd...

...OKADA, Tomoyuki, Matsushita Elc Ind Co.Ltd...

...IKEDA W...

...OKADA T...

...IKEDA, Wataru...

...OKADA, Tomoyuki

16/3,K/32 (Item 32 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2007 The Thomson Corporation. All rts. reserv.

0015412722 - Drawing available

WPI ACC NO: 2005-758942/200577

XRPX Acc No: N2005-626335

Recording medium e.g. Blu-ray disk read only memory, records playlist data specifying reproduction route by arranging combination of reproduction start and stop time, and entry map indicating positions of intra-pictures in video stream

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: OKADA T; YAHATA H

Patent Family (3 patents, 108 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005101827	A1	20051027	WO 2005JP7302	A	20050415	200577 B
EP 1746825	A1	20070124	EP 2005730556	A	20050415	200708 E
			WO 2005JP7302	A	20050415	
JP 2006512388	X	20070816	WO 2005JP7302	A	20050415	200755 E
			JP 2006512388	A	20050415	

Priority Applications (no., kind, date): JP 2004121594 A 20040416

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005101827	A1	JA	98	42		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN

MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM

TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW

EP 1746825 A1 EN PCT Application WO 2005JP7302

Based on OPI patent WO 2005101827

Regional Designated States,Original: DE FR GB

JP 2006512388 X JA 93 PCT Application WO 2005JP7302

Based on OPI patent WO 2005101827



Recording medium e.g. Blu-ray disk read only memory, records playlist data specifying reproduction route by arranging combination of reproduction start and stop time, and entry map indicating positions of...  
Inventor: OKADA T...

...YAHATA H

Alerting Abstract ...USE - E.g. Blu-ray disk (BD)-ROM...

Original Publication Data by Authority

Inventor name & address:

YAHATA, Hiroshi, Mats. El. Ind. Co., IPROC, IP Dev...

...OKADA, Tomoyuki, Mats. El. Ind. Co., IPROC, IP Dev...

...YAHATA, Hiroshi...

...OKADA, Tomoyuki

16/3,K/33 (Item 33 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2007 The Thomson Corporation. All rts. reserv.

0015346867 - Drawing available

WPI ACC NO: 2005-697126/200572

XRPX Acc No: N2005-572087

Information recorder e.g. digital versatile disk recorder for use with television, records multimedia information in stream on disk and stores management information describing arrangement information of recorded audio/video stream

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU)

Inventor: GOTO H; OKADA T; YAHATA H

Patent Family (1 patents, 1 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
JP 2005293764	A	20051020	JP 2004109820	A	20040402	200572 B

Priority Applications (no., kind, date): JP 2004109820 A 20040402

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
JP 2005293764	A	JA	29	23		

...Inventor: OKADA T...

...YAHATA H

Alerting Abstract USE - E.g. phase-change type digital versatile disk (DVD) recorder, DVD camcorder, Blu-ray disk (BD) recorder for recording of multimedia data such as still-picture data, audio data, moving image data and data broadcasting of television (TV) connected...

Original Publication Data by Authority

Inventor name & address:

YAHATA H...

...OKADA T

16/3,K/34 (Item 34 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0015268667 - Drawing available

WPI ACC NO: 2005-618766/200563

XRPX Acc No: N2005-507930

Recording medium e.g. digital versatile disk for home theater system,  
 stores status information indicating that management of memory in graphics  
 decoder continues, while reproducing audio video clip continuously

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); KOZUKA M (KOZU-I)  
 ; MCCROSSAN J (MCCR-I); OKADA T (OKAD-I)

Inventor: KOZUKA M; MCCROSSAN J; OKADA T

Patent Family (6 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005079064	A1	20050825	WO 2005JP2489	A	20050217	200563 B
EP 1718073	A1	20061102	EP 2005710339	A	20050217	200672 E
			WO 2005JP2489	A	20050217	
KR 2006129032	A	20061214	WO 2005JP2489	A	20050217	200742 E
			KR 2006717255	A	20060825	
CN 1922870	A	20070228	CN 200580005156	A	20050217	200743 E
US 20070160344	A1	20070712	US 2004545080	P	20040217	200748 E
			WO 2005JP2489	A	20050217	
			US 2006587055	A	20060725	
JP 2005518056	X	20070802	JP 2005518056	A	20050217	200753 E
			WO 2005JP2489	A	20050217	

Priority Applications (no., kind, date): US 2004545080 P 20040217; US  
 2006587055 A 20060725

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005079064 A1 JA 87 38

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
 MX MZ NA NI NO NZ OL PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
 TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD  
 SE SI SK SL SZ TR TZ UG ZM ZW

EP 1718073 A1 EN PCT Application WO 2005JP2489

Based on OPI patent WO 2005079064

Regional Designated States,Original: DE FR GB

KR 2006129032 A KO PCT Application WO 2005JP2489

Based on OPI patent WO 2005079064

US 20070160344 A1 EN Related to Provisional US 2004545080

PCT Application WO 2005JP2489

JP 2005518056 X JA 44 PCT Application WO 2005JP2489

Based on OPI patent WO 2005079064

...Inventor: MCCROSSAN J...

...OKADA T

Alerting Abstract ...USE - E.g. read only memory blu-ray disk  
(BD-ROM), digital versatile disk (DVD) such as read only memory DVD  
(DVD-ROM), random access memory DVD (DVD-RAM), rewritable DVD (DVD-RW...

Original Publication Data by Authority

Inventor name & address:

MCCROSSAN J...

...OKADA T...

...MCCROSSAN, Joseph, c/o Mat. Elec. Ind. Co., Ltd...

...OKADA, Tomoyuki, c/o Mat. Elec. Ind. Co., Ltd...

...MCCROSSAN J...

...OKADA T...

...McCrossan, Joseph...

...Okada, Tomoyuki...

...MCCROSSAN, Joseph...

...OKADA, Tomoyuki

16/3,K/35 (Item 35 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015241384 - Drawing available

WPI ACC NO: 2005-591458/200560

XRPX Acc No: N2005-485223

Recording medium e.g. Blu-ray disk read only memory has copy  
control information indicating enabled/disabled state of recording, when  
converting frame images into video signal

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: YAHATA H

Patent Family (3 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005074270	A1	20050811	WO 2005JP1269	A	20050128	200560 B
EP 1711009	A1	20061011	EP 2005704267	A	20050128	200667 E
			WO 2005JP1269	A	20050128	
CN 1939055	A	20070328	CN 200580010429	A	20050128	200752 E

Priority Applications (no., kind, date): JP 200422908 A 20040130

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005074270 A1 JA 110 53

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW  
 EP 1711009 A1 EN PCT Application WO 2005JP1269  
 Based on OPI patent WO 2005074270  
 Regional Designated States,Original: DE FR GB

Recording medium e.g. Blu-ray disk read only memory has copy control information indicating enabled/disabled state of recording, when converting frame images into video signal

Inventor: YAHATA H

Alerting Abstract ...NOVELTY - The Blu-ray disk read only memory contains a video stream which constitutes a moving picture formed by frame images and multiple copy control information (CCI). The CCI...  
 ...USE - E.g. Blu-ray disk read only memory (BD-ROM...

Original Publication Data by Authority

Inventor name & address:

YAHATA H...

...YAHATA, Hiroshi, c/o Matsushita El. Ind. Co., Ltd...

...YAHATA, Hiroshi

16/3,K/36 (Item 36 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0015241318 - Drawing available  
 WPI ACC NO: 2005-591392/200560  
 XRPX Acc No: N2005-485157  
 Recording medium e.g. Blu-ray disk-read only memory stores copy control information for high definition and standard definition with and without commercials for indicating recording status  
 Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)  
 Inventor: YAHATA H

Patent Family (3 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005073862	A1	20050811	WO 2005JP1266	A	20050128	200560 B
EP 1710704	A1	20061011	EP 2005704264	A	20050128	200667 E
			WO 2005JP1266	A	20050128	
CN 1934546	A	20070321	CN 200580009207	A	20050128	200752 E

Priority Applications (no., kind, date): JP 200422909 A 20040130

#### Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005073862 A1 JA 112 53

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
 MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
 TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
 FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD  
 SE SI SK SL SZ TR TZ UG ZM ZW

EP 1710704 A1 EN PCT Application WO 2005JP1266

Based on OPI patent WO 2005073862

Regional Designated States, Original: DE FR GB

Recording medium e.g. Blu-ray disk-read only memory stores copy control information for high definition and standard definition with and without commercials for indicating recording status

Inventor: YAHATA H

Alerting Abstract ...NOVELTY - The Blu-ray disk-read only memory contains a video stream and multiple copy control information (CCI). The CCI for high definition (HD) and standard definition (SD) with...  
...USE - E.g. Blu-ray disk-read only memory (BD-ROM...

Original Publication Data by Authority

Inventor name &amp; address:

YAHATA H......YAHATA, Hiroshi, c/o Matsushita El. Ind. Co., Ltd......YAHATA, Hiroshi

16/3,K/37 (Item 37 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015205305 - Drawing available

WPI ACC NO: 2005-555326/200556

XRPX Acc No: N2005-455364

Blu-ray disk ROM stores audio-video clip multiplexed with interactive graphics stream that includes menu, display sets comprising interactive control information and header version information of each menu page

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: MCCROSSAN J; OKADA T; MC CROSSAN J

Patent Family (4 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005069615	A1	20050728	WO 2005JP314	A	20050113	200556 B
EP 1713269	A1	20061018	EP 2005703553	A	20050113	200669 E
			WO 2005JP314	A	20050113	
CN 1930877	A	20070314	CN 200580007940	A	20050113	200752 E
KR 2007003849	A	20070105	WO 2005JP314	A	20050113	200753 E
			KR 2006715923	A	20060807	

Priority Applications (no., kind, date): US 2004536045 P 20040113

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005069615 A1 JA 114 48

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States, Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD

SE SI SK SL SZ TR TZ UG ZM ZW

EP 1713269 A1 EN PCT Application WO 2005JP314

Based on OPI patent WO 2005069615

Regional Designated States, Original: DE FR GB

KR 2007003849 A KO PCT Application WO 2005JP314

Based on OPI patent WO 2005069615

Blu-ray disk ROM stores audio-video clip multiplexed with interactive graphics stream that includes menu, display sets comprising interactive control information and header version information of...

Inventor: MCCROSSAN J......OKADA T

Alerting Abstract ...NOVELTY - The blu-ray disk ROM (BD-ROM) stores the audio-video clip multiplexed with an interactive graphics stream. The graphic stream includes a display menu, the display sets...

...USE - Blu-ray disk ROM (BD-ROM) for storing audio-video (AV) data...

Original Publication Data by Authority

Inventor name &amp; address:

...OKADA T......McCossan, Joseph, c/o Matsushita El. Ind. Co., Ltd......OKADA, Tomoyuki, c/o Matsushita El. Ind. Co., Ltd......OKADA T......McCossan, Joseph......OKADA, Tomoyuki

16/3,K/38 (Item 38 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015085621 - Drawing available

WPI ACC NO: 2005-435078/200544

XRPX Acc No: N2005-353144

Recording medium e.g. blu-ray disk, stores graphics stream including interactive control information comprising composition data indicating duration after which display composition is replaced by subsequent composition

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); KOZUKA M (KOZU-I); MCCROSSAN J (MCCR-I); OKADA T (OKAD-I)

Inventor: KOZUKA M; MCCROSSAN J; OKADA T; MC CROSSAN J

Patent Family (6 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005048592	A1	20050526	WO 2004JP17220	A	20041112	200544 B
EP 1683349	A1	20060726	EP 2004818566	A	20041112	200649 E
			WO 2004JP17220	A	20041112	
CN 1879405	A	20061213	CN 200480033447	A	20041112	200731 E
US 20070098363	A1	20070503	WO 2004JP17220	A	20041112	200731 E
			US 2006578584	A	20060505	
JP 2007514329	W	20070531	WO 2004JP17220	A	20041112	200737 E
			JP 2006515496	A	20041112	

KR 2006132608 A 20061221 WO 2004JP17220 A 20041112 200742 E  
KR 2006711263 A 20060608

Priority Applications (no., kind, date): US 2003519113 P 20031112; US  
2006578584 A 20060505

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005048592 A1 EN 159 49

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE

SI SK SL SZ TR TZ UG ZM ZW

EP 1683349 A1 EN PCT Application WO 2004JP17220

Based on OPI patent WO 2005048592

Regional Designated States,Original: DE FR GB

US 20070098363 A1 EN PCT Application WO 2004JP17220

JP 2007514329 W JA 58 PCT Application WO 2004JP17220

Based on OPI patent WO 2005048592

KR 2006132608 A KO PCT Application WO 2004JP17220

Based on OPI patent WO 2005048592

Recording medium e.g. blu-ray disk, stores graphics stream  
including interactive control information comprising composition data  
indicating duration after which display composition is replaced by  
subsequent composition

...Inventor: MCCROSSAN J...

...OKADA T

Alerting Abstract ...USE - Recording medium e.g. blu-ray (BD)  
disk used in home theater system, for storing video stream and graphics  
stream...

Original Publication Data by Authority

Inventor name & address:

MCCROSSAN J...

...OKADA T...

...McCROSSAN, Joseph, c/o Panasonic Hollywood Laborat...

...OKADA, Tomoyuki, 19F Matsushita IMP Bldg...

...OKADA T...

...McCCrossan, Joseph...

...Okada, Tomoyuki...

...McCROSSAN, Joseph...

...OKADA, Tomoyuki

16/3,K/39 (Item 39 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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0015085578 - Drawing available

WPI ACC NO: 2005-435035/200544

XRPX Acc No: N2005-353101

Recording medium e.g. blu-ray disk-ROM stores graphic stream  
 comprising interactive control information including time information for  
 controlling behavior of multi-page menu based on playback proceeding of  
 video stream

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); KOZUKA M (KOZU-I)  
 ; MCCROSSAN J (MCCR-I); OKADA T (OKAD-I)

Inventor: KOZUKA M; MCCROSSAN J; OKADA T

Patent Family (6 patents, 106 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
WO 2005048261	A1	20050526	WO 2004JP17215	A	20041112	200544 B
EP 1683155	A1	20060726	EP 2004818564	A	20041112	200649 E
			WO 2004JP17215	A	20041112	
US 20060291810	A1	20061228	US 2003519317	P	20031112	200702 E
			WO 2004JP17215	A	20041112	
			US 2006577968	A	20060502	
CN 1879170	A	20061213	CN 200480033446	A	20041112	200731 E
KR 2006115749	A	20061109	WO 2004JP17215	A	20041112	200734 E
			KR 2006711262	A	20060608	
JP 2007515025	W	20070607	WO 2004JP17215	A	20041112	200739 E
			JP 2006515500	A	20041112	

Priority Applications (no., kind, date): US 2003519317 P 20031112; US  
 2006577968 A 20060502

#### Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005048261	A1	EN	160	49		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW  
 BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR  
 HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW  
 MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR  
 TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES  
 FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE  
 SI SK SL SZ TR TZ UG ZM ZW

EP 1683155 A1 EN PCT Application WO 2004JP17215

Based on OPI patent WO 2005048261

Regional Designated States,Original: DE FR GB

US 20060291810 A1 EN Related to Provisional US 2003519317

PCT Application WO 2004JP17215

KR 2006115749 A KO PCT Application WO 2004JP17215

Based on OPI patent WO 2005048261

JP 2007515025 W JA 61 PCT Application WO 2004JP17215

Based on OPI patent WO 2005048261

Recording medium e.g. blu-ray disk-ROM stores graphic stream  
 comprising interactive control information including time information for  
 controlling behavior of multi-page menu based on playback proceeding of  
 video...

...Inventor: MCCROSSAN J...



...OKADA T

Alerting Abstract ...USE - Recording medium e.g. blu-ray disk  
(BD)-ROM, DVD-ROM, DVD-RAM, rewritable-DVD (DVD-RW), recordable-DVD  
(DVD-R), DVD+RW, DVD+R, CD-R and CD-RW, magneto...

Original Publication Data by Authority

Inventor name &amp; address:

MCCROSSAN J......OKADA T......McCROSSAN, Joseph, c/o Matsushita El. Ind. Co, Ltd......OKADA, Tomoyuki, c/o Matsushita El. Ind. Co, Ltd......McCCrossan, Joseph......Okada, Tomoyuki......McCROSSAN, Joseph......OKADA, Tomoyuki

16/3,K/40 (Item 40 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015075285 - Drawing available

WPI ACC NO: 2005-424724/200543

XRPX Acc No: N2005-344710

Recording medium e.g. Blu-ray disk, contains application having  
predetermined active section where execution by virtual machine is enabled

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU); MATSUSHITA DENKI  
SANGYO KK (MATU)

Inventor: IKEDA W; IKEDA W E; IWAMOTO H; IWAMOTO H E; MASAFUMI  
O; OKADA T; OKADA T E; OKUBO M; OKUBO M E; IKEDA K; IWAMOTO K

Patent Family (10 patents, 107 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005045840	A1	20050519	WO 2004JP16598	A	20041109	200543 B
BR 200409003	A	20060328	BR 20049003	A	20041109	200624 E
			WO 2004JP16598	A	20041109	
MX 2005010367	A1	20051201	WO 2004JP16598	A	20041109	200629 E
			MX 200510367	A	20050927	
JP 2006139896	A	20060601	JP 2005515351	A	20041109	200637 E
			JP 2005289495	A	20051003	
US 20060140091	A1	20060629	WO 2004JP16598	A	20041109	200643 E
			US 2006549318	A	20060117	
EP 1691367	A1	20060816	EP 2004818238	A	20041109	200654 E
			WO 2004JP16598	A	20041109	
CN 1768387	A	20060503	CN 200480008998	A	20041109	200663 E
JP 3851341	B2	20061129	WO 2004JP16598	A	20041109	200680 E
			JP 2005515351	A	20041109	
JP 2005515351	X	20070524	WO 2004JP16598	A	20041109	200735 E
			JP 2005515351	A	20041109	
KR 2007005449	A	20070110	WO 2004JP16598	A	20041109	200755 E

KR 2005718474 A 20050929

Priority Applications (no., kind, date): JP 2003380464 A 20031110; JP  
2004261376 A 20040908

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005045840	A1	JA	134	54		

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE

SI SK SL SZ TR TZ UG ZM ZW

BR 200409003 A PT PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

MX 2005010367 A1 ES PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

JP 2006139896 A JA 61 Division of application JP 2005515351

US 20060140091 A1 EN PCT Application WO 2004JP16598

EP 1691367 A1 EN PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI

FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

JP 3851341 B2 JA 60 PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

JP 2005515351 X JA 136 PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

KR 2007005449 A KO PCT Application WO 2004JP16598

Based on OPI patent WO 2005045840

Recording medium e.g. **Blu-ray** disk, contains application having  
predetermined active section where execution by virtual machine is enabled

Inventor: **IKEDA W...**...**IKEDA W E...**...**OKADA T...**...**OKADA T E**

Alerting Abstract ...USE - For control of e.g. movie distribution  
application, using **Blu-ray** disk-**Java** (BD-J)  
object...

Original Publication Data by Authority

Inventor name &amp; address:

...**IKEDA W...**...**OKADA T...**...**IKEDA, Wataru, Matsushita Electric Ind. Co. Ltd...**...**OKADA, Tomoyuki, Matsushita Electric Ind. Co. Ltd...**

...OKADA TOMOYUKI......IKEDA W......OKADA T......OKADA T......IKEDA W......Ikeda, Wataru......Okada, Tomoyuki......IKEDA, Wataru......OKADA, Tomoyuki

Original Abstracts:

...L'invention porte sur un Blu-ray a memoire morte (BD-ROM)  
 contenant une liste de lecture consistant en sequences AV et en  
 informations de liste de lecture; une application; et un...

16/3,K/41 (Item 41 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015047371 - Drawing available

WPI ACC NO: 2005-395390/200540

Related WPI Acc No: 2005-395384; 2005-395385; 2005-395386; 2005-395391

XRPX Acc No: N2005-320474

Blu-ray disk-ROM contains several branched titles with  
 application management table, and Java application which is program  
 described in programming language for virtual machine

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: IKEDA W; IWAMOTO H; OKADA T

Patent Family (4 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005036554	A1	20050421	WO 2004JP15330	A	20041012	200540 B
EP 1672637	A1	20060621	EP 2004773781	A	20041012	200643 E
			WO 2004JP15330	A	20041012	
JP 2005514677	X	20061228	WO 2004JP15330	A	20041012	200702 E
			JP 2005514677	A	20041012	
KR 2007018799	A	20070214	WO 2004JP15330	A	20041012	200755 E
			KR 2006707243	A	20060414	

Priority Applications (no., kind, date): JP 2003352913 A 20031010; JP  
 2003379758 A 20031110

## Patent Details

Number	Kind	Lan	Pg	Dwg	Filing	Notes
WO 2005036554	A1	JA	138	60		
EP 1672637	A1	EN			PCT Application	WO 2004JP15330
					Based on OPI patent	WO 2005036554
Regional Designated States, Original: DE FR GB						
JP 2005514677	X	JA	123		PCT Application	WO 2004JP15330
					Based on OPI patent	WO 2005036554
KR 2007018799	A	KO			PCT Application	WO 2004JP15330
					Based on OPI patent	WO 2005036554

**Blu-ray** disk-ROM contains several branched titles with application management table, and Java application which is program described in programming language for virtual machine  
Inventor: **IKEDA W...**

...**OKADA T**

Alerting Abstract ...USE - E.g. **Blu-ray** disk-ROM (BD-ROM...

Original Publication Data by Authority

Inventor name & address:

**IKEDA, Wataru, c/o Mat.Elec.Ind.Co., Ltd...**

...**OKADA, Tomoyuki, c/o Mat.Elec.Ind.CO., Ltd...**

...**IKEDA W...**

...**OKADA T...**

...**IKEDA, Wataru...**

...**OKADA, Tomoyuki**

16/3,K/42 (Item 42 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0015047367 - Drawing available

WPI ACC NO: 2005-395386/200540

Related WPI Acc No: 2005-395384; 2005-395385; 2005-395390; 2005-395391

XRPX Acc No: N2005-320470

Reproduction device of **Blu-ray** disk ROM, has Java virtual machine for interpreting application and executing instance, and application manager for interpreting that title reproduction is continuing even after application termination

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU)

Inventor: **IKEDA W**; IWAMOTO H; **OKADA T**

Patent Family (4 patents, 106 countries)

Patent Application

Number	Kind	Date	Number	Kind	Date	Update
WO 2005036547	A1	20050421	WO 2004JP15337	A	20041012	200540 B
EP 1675119	A1	20060628	EP 2004773787	A	20041012	200643 E
			WO 2004JP15337	A	20041012	
JP 2005514681	X	20061228	WO 2004JP15337	A	20041012	200702 E
			JP 2005514681	A	20041012	
KR 2007028290	A	20070312	WO 2004JP15337	A	20041012	200755 E
			KR 2006707239	A	20060414	

Priority Applications (no., kind, date): JP 2003352913 A 20031010; JP 2003379758 A 20031110

Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005036547 A1 JA 134 60

EP 1675119 A1 EN PCT Application WO 2004JP15337

Based on OPI patent WO 2005036547

Regional Designated States,Original: DE FR GB

JP 2005514681 X JA 119 PCT Application WO 2004JP15337

Based on OPI patent WO 2005036547  
 KR 2007028290 A KO PCT Application WO 2004JP15337  
 Based on OPI patent WO 2005036547  
 Reproduction device of Blu-ray disk ROM, has Java virtual  
 machine for interpreting application and executing instance, and  
 application manager for interpreting that title reproduction is continuing  
 even after application...  
 Inventor: IKEDA W...

...OKADA T

Alerting Abstract ...USE - For reproducing data from Blu-ray  
 disk (BD) ROM...

Original Publication Data by Authority

Inventor name & address:

IKEDA, Wataru...

...OKADA, Tomoyuki...

...IKEDA W...

...OKADA T...

...IKEDA, Wataru...

...OKADA, Tomoyuki

16/3,K/43 (Item 43 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2007 The Thomson Corporation. All rts. reserv.

0014815036 - Drawing available

WPI ACC NO: 2005-162725/200517

Related WPI Acc No: 2005-112157; 2005-162724

XRPX Acc No: N2005-136576

Audio-video clip reproduction apparatus in home theater system, involves  
 selecting elementary stream judged to satisfy predetermined condition and  
 having highest entry order in table acquired from playlist information, for  
 reproduction

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Patent Family (5 patents, 106 countries)

Patent

Application

Number	Kind	Date	Number	Kind	Date	Update
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WO 2005011273	A1	20050203	WO 2004JP8860	A	20040617	200517 B
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EP 1677532	A1	20060705	EP 2004746329	A	20040617	200644 E
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			WO 2004JP8860	A	20040617	
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			US 2006558950	A	20060802	
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Priority Applications (no., kind, date): JP 2003173208 A 20030618

## Patent Details

Number Kind Lan Pg Dwg Filing Notes

WO 2005011273 A1 JA 139 59

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW

BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR

HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR

TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES

FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI

SK SL SZ TR TZ UG ZM ZW

EP 1677532 A1 EN PCT Application WO 2004JP8860

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Regional Designated States,Original: DE FR GB

JP 2005511982 X JA 117 PCT Application WO 2004JP8860

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KR 2006027334 A KO PCT Application WO 2004JP8860

Based on OPI patent WO 2005011273

US 20060291806 A1 EN PCT Application WO 2004JP8860

Inventor: IKEDA W......OKADA T

...NOVELTY - The apparatus acquires a table describing an entry for each elementary stream, from playlist (PL) information in Blu-ray disk ROM (BD-ROM), when audio-video (AV) clips having elementary streams multiplexed from the BD-ROM are reproduced. The elementary stream which is judged...

Original Publication Data by Authority

Inventor name &amp; address:

IKEDA, Wataru......OKADA, Tomovuki......IKEDA W......OKADA T......Ikeda, Wataru......Okada, Tomovuki......IKEDA, Wataru......OKADA, Tomovuki

16/3,K/44 (Item 44 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0014815035 - Drawing available

WPI ACC NO: 2005-162724/200517

Related WPI Acc No: 2005-112157; 2005-162725

XRPX Acc No: N2005-136575

Blu ray disk-ROM player has status register in which